

**Oracle® Communications**

**Diameter Signaling Router**

DSR/SDS NOAM Failover

Release 8.6.0.0.0

F56015-01

April 2022

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.




**CAUTION:** [Before performing a Failover on any system, please access My Oracle Support \(MOS\) and review any Technical Service Bulletins \(TSBs\) that may relate to this procedure.](#)

My Oracle Support (MOS) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Refer to **APPENDIX A: Accessing My Oracle Support (MOS)**, for more information on contacting Oracle Customer Service.

# TABLE OF CONTENTS

- 1. OVERVIEW OF FAILOVER PROCEDURES .....4**
  - 1.1 Introduction.....4
  - 1.2 References.....4
  - 1.3 Acronyms.....4
  - 1.4 Required Materials.....4
  - 1.5 How to use this Document.....5
- 2. DSR / SDS NOAM FAILOVER PROCESS FLOW CHART: .....6**
- 3. LIST OF PROCEDURES .....8**
- 4. PRE-FAILOVER PROCEDURES.....9**
  - 4.1 Exporting Alarms.....9
  - 4.2 Disable Global Provisioning / PDB Relay Verification.....14
  - 4.3 Database Backup.....20
- 5. FAILOVER PROCEDURES .....25**
  - 5.1 Demoting the Active NOAM from Primary to Secondary .....25
  - 5.2 Promoting the DR NOAM from Secondary to Primary.....32
    - 5.2.1 Promoting the DR NOAM from Secondary to Primary (Graceful) .....32
    - 5.2.2 Promoting the DR NOAM from Secondary to Primary (Outage).....37
  - 5.3 Enable Global Provisioning .....44
- 6. VERIFYING ALARM STATUS (AFTER FAILOVER) .....47**
- 7. BACKOUT PROCEDURES.....50**
- APPENDIX A: ACCESSING MY ORACLE SUPPORT (MOS).....51**



**READ SECTION 2 BEFORE ATTEMPTING ANY PROCEDURES IN THIS DOCUMENT!**

## 1. Overview of Failover Procedures

### 1.1 Introduction

Although each Product maintains individual Disaster Recovery Procedures, the steps required to manually transfer functionality between a Primary and a Secondary NOAM NE is currently common to all Oracle COMCOL based products matching a 3-tier topology with an installed DR NOAM. Therefore, the intent of this document is to function as a single reference supporting both the DSR and SDS.

Currently, the DSR and SDS Disaster Recovery procedures assume that the Primary NOAM is network isolated as a prerequisite to Failover. It is important to note here that the reason for network isolation is not relevant to these procedures (i.e. the loss of the NOAM NE's default router, a site power outage or the site being underwater due to flooding all look the same to the rest of the topology).

It should also be noted that this document goes a step further than just addressing Disaster Recovery procedures in that it also offers the methodology required to perform a "graceful" Failover where the Primary NOAM is not network isolated and no outage scenario exist.

### 1.2 References

- [1] 3-Tier NOAM Failover, MO008266
- [2] DSR Disaster Recovery User's Guide
- [3] SDS Disaster Recovery User's Guide

### 1.3 Acronyms

Acronym	Meaning
CLI	Command Line Interface
DR	Disaster Recovery
DSR	Diameter Signaling Router
GUI	Graphical User Interface
NE	Network Element
NOAM (or NOAMP)	Network Operations, Administration, Maintenance and Provisioning
SDS	Subscriber Database Server
VIP	Virtual IP
XMI	eXternal Management Interface

### 1.4 Required Materials

No physical materials are required for this procedure. However, the user must have access to an "Administrator" level account in the NOAM GUI and "root" access to both the Primary and Disaster Recovery servers CLI.

## 1.5 How to use this Document

When executing this document, there are a few points which help to ensure that the user understands the author's intent. These points are as follows;

- 1) Before beginning a procedure, completely read the instructional text (it will appear immediately after the Section heading for each procedure) and all associated procedural WARNINGS or NOTES.
- 2) Before execution of a STEP within a procedure, completely read the left and right columns including any STEP specific WARNINGS or NOTES.

If a procedural STEP fails to execute successfully, **STOP** and **My Oracle Support (MOS)** for assistance before attempting to continue. Refer to **APPENDIX A: Accessing My Oracle Support (MOS)**, for more information on contacting Oracle Customer Service.



**READ SECTION 2 BEFORE ATTEMPTING ANY PROCEDURES IN THIS DOCUMENT.**

## 2. DSR / SDS NOAM Failover Process Flow Chart:

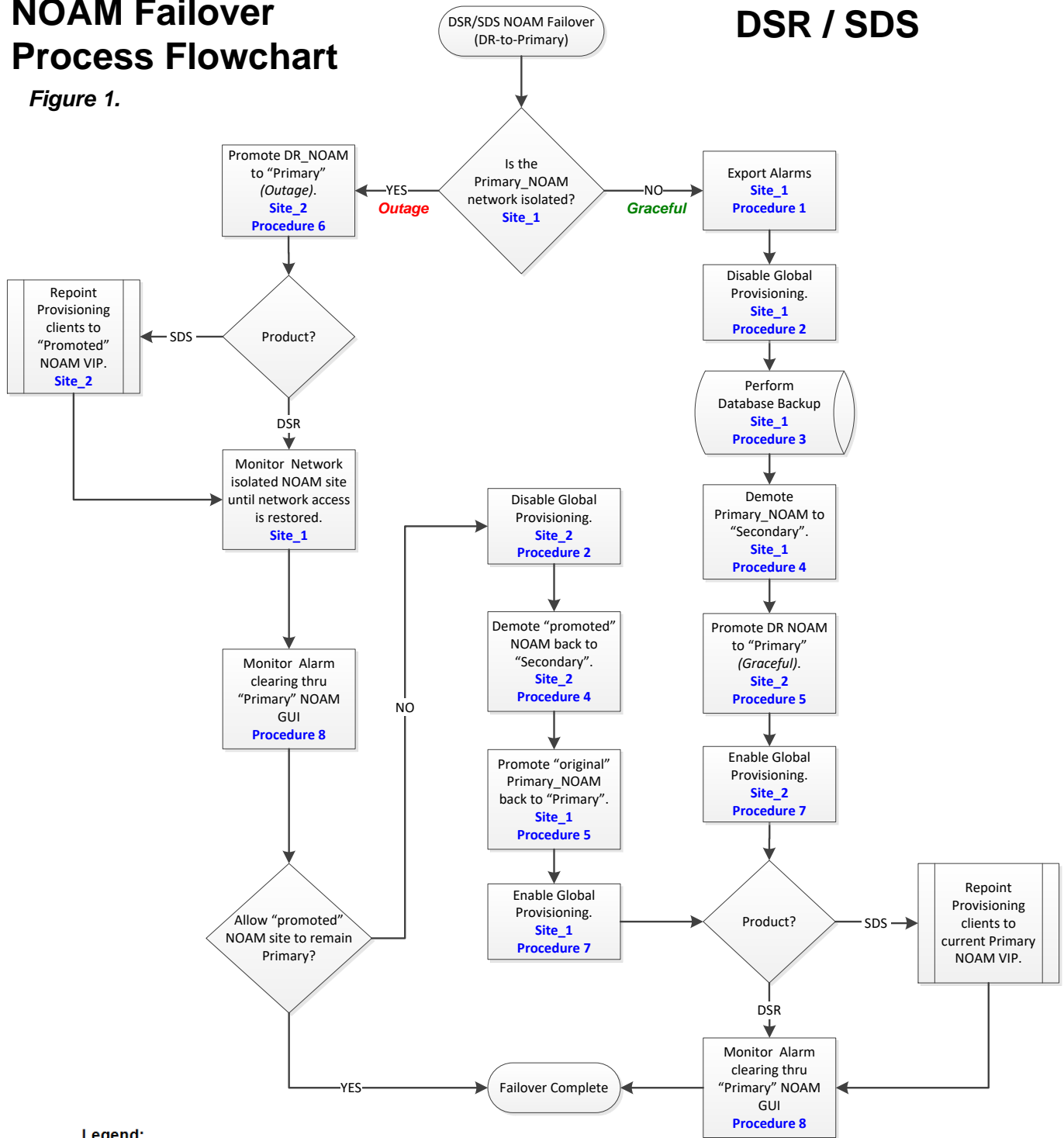
**This document supports NOAM Failover for DSR/SDS 8.6.0.0.0 releases only (i.e. COMCOL 7.5).**

The flowchart on the following page (**Figure 1**) is intended to act as the core Procedure for DSR / SDS NOAM Failover.

- Executing to the flowchart, the user should execute all Procedures in this document as subroutines in a program (*i.e. always returning to the flowchart after executing a called out procedure*).
- After completing a “called out” Procedure, never continue on to the next Procedure unless directed to do so based on the logic trail followed from the flowchart in “**Figure 1**”.
- The user should understand that any NOAM NE may function as the “Primary” or the “Secondary” (*Disaster Recovery mode*). Do not confuse site names or designations with the actual functional state of the NOAM NE. Just because “DRNO” may be part of a NOAM server’s hostname does not mean that that server is currently running in Disaster Recovery mode (*i.e. Secondary*).
- Before starting this procedure, it is strongly suggested that the user print out **Figure 1** and write in the Primary (Site\_1) and Disaster Recovery (Site\_2) site names in the space provided (*see detailed description in Figure 1 Legend*).

# NOAM Failover Process Flowchart

Figure 1.



**Legend:**

Site	Role	Comments
Site_1	Primary_NOAM	Site designated as the Primary NOAM NE at the start of Failover (i.e. running in "Primary" mode).
Site_2	DR_NOAM	Site designated as the Disaster Recovery (DR) NOAM NE at the start of Failover (i.e. running in "Secondary" mode).

**Site\_1 = Primary\_NOAM = \_\_\_\_\_ (Site Name)**

**Site\_2 = DR\_NOAM = \_\_\_\_\_ (Site Name)**

Figure 1: DSR / SDS NOAM Failover Process Chart

### 3. List of Procedures

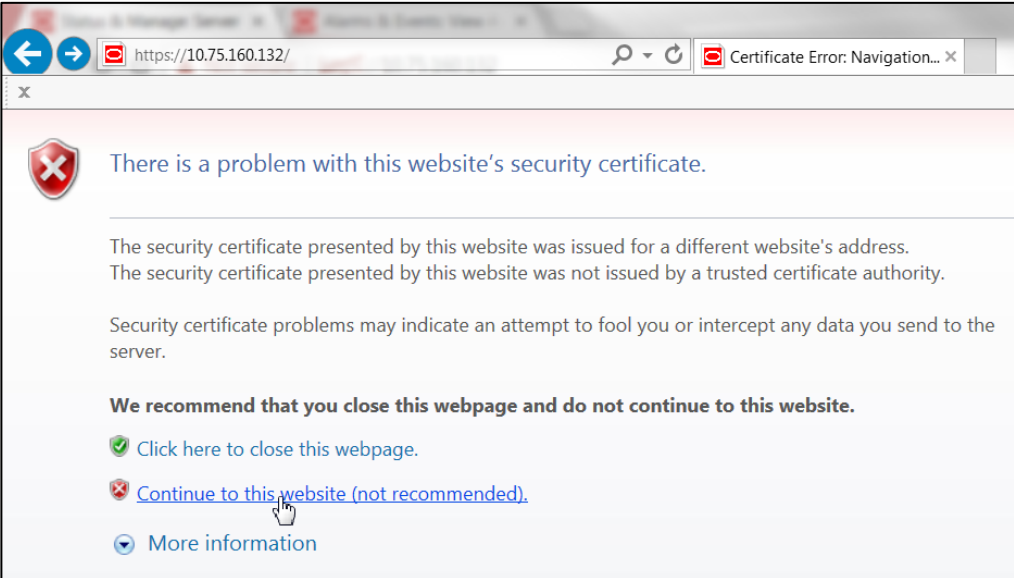

<b>Procedure</b>	<b>Title</b>	<b>Page No.</b>
Procedure 1	Procedure 1: Export Alarms at the Active NOAM [Site_1]	9
Procedure 2	Disable Global Provisioning / PDB Relay Verification [Site_1]	14
Procedure 3	Database Backup [Site_1]	20
Procedure 4	Demoting the Active NOAM from Primary to Secondary [Site_1]	25
Procedure 5	Promoting the DR NOAM from Secondary to Primary (Graceful) [Site_2]	32
Procedure 6	Promoting the DR NOAM from Secondary to Primary (Outage) [Site_2]	37
Procedure 7	Enable Global Provisioning [Site_2]	37
Procedure 8	Verify Alarm Status (system wide) at the Active Primary NOAM	44
Procedure 9	Reversing Primary/Secondary NOAM Failover (Backout)	47

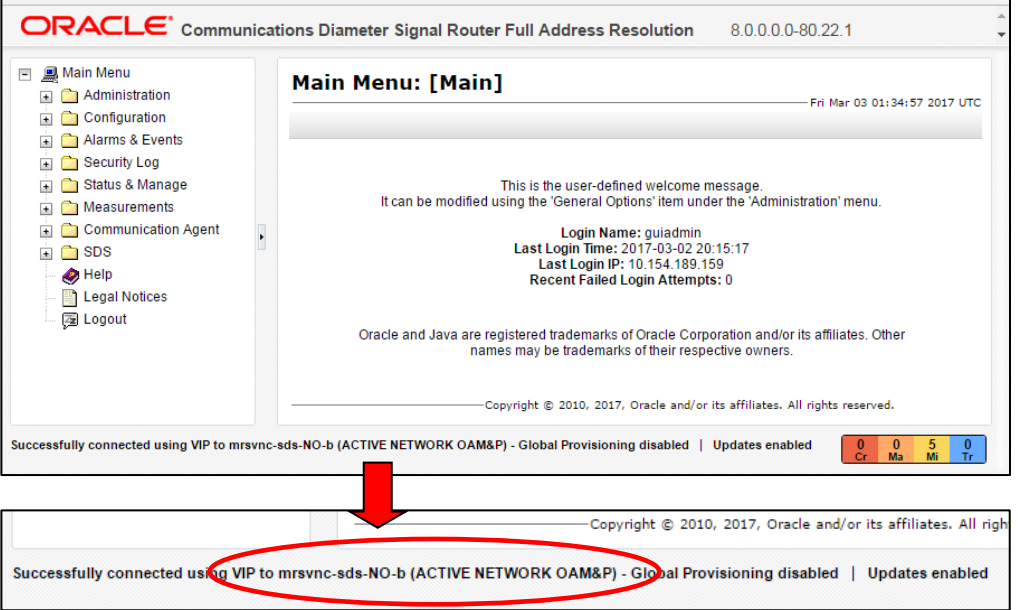
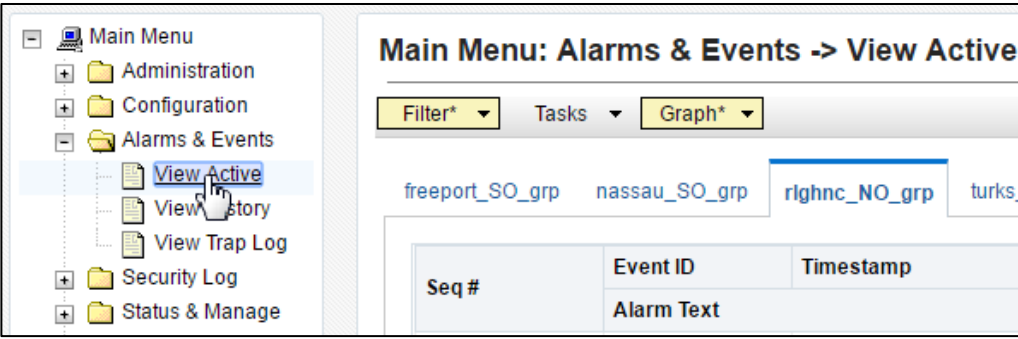
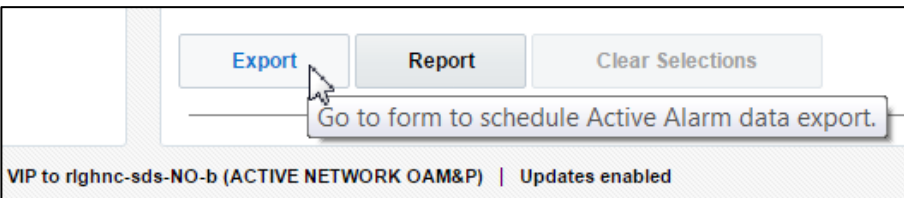


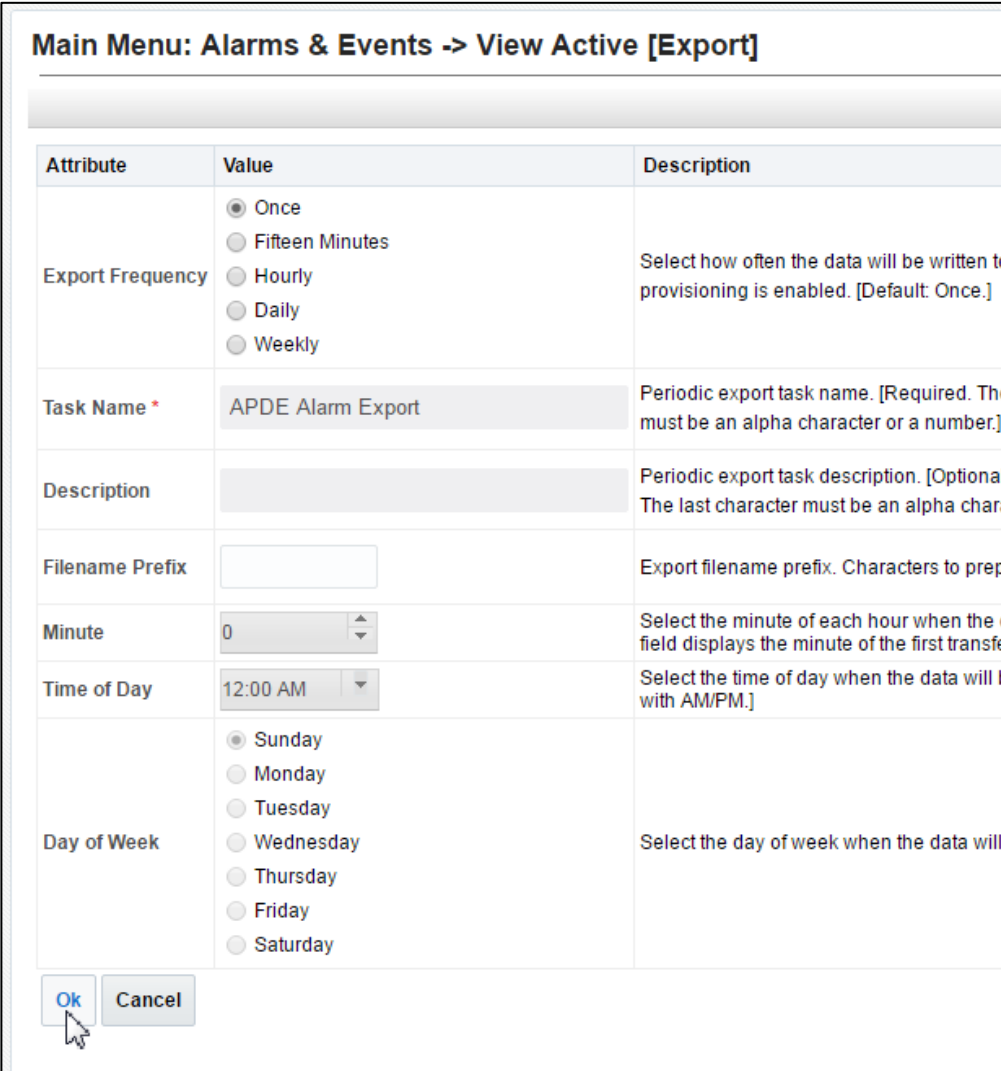
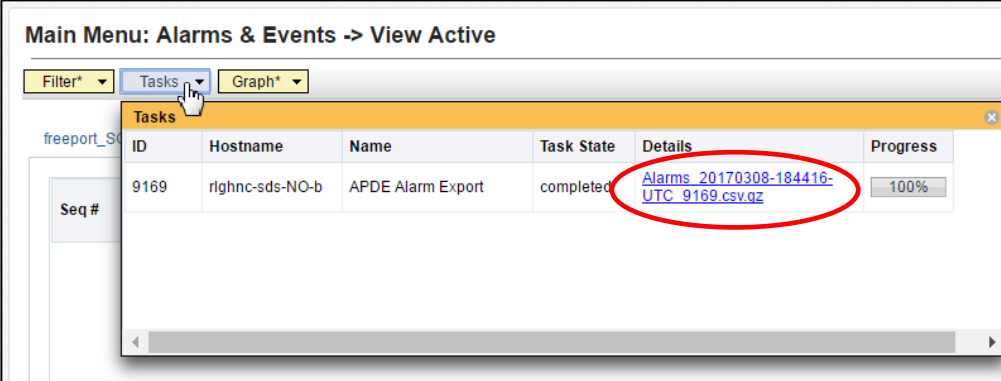
## 4. Pre-Failover Procedures

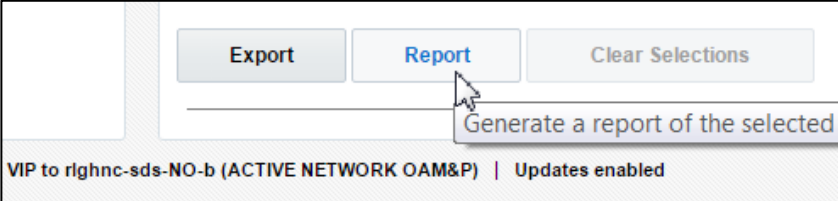
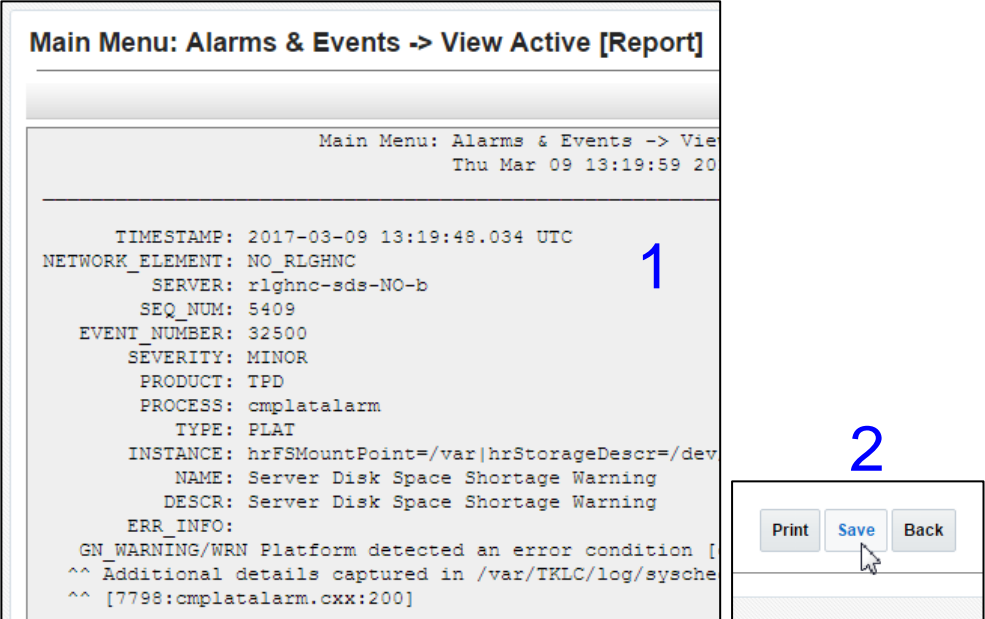
### 4.1 Exporting Alarms

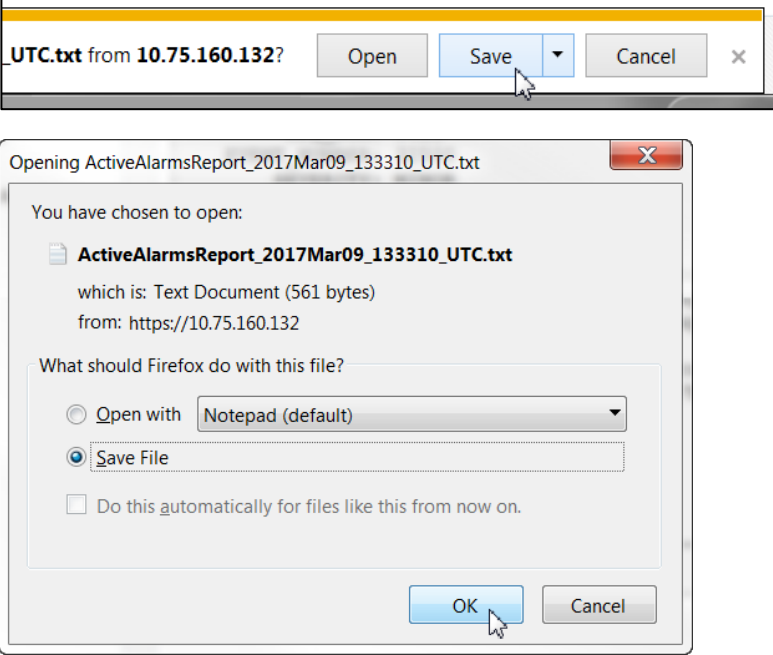
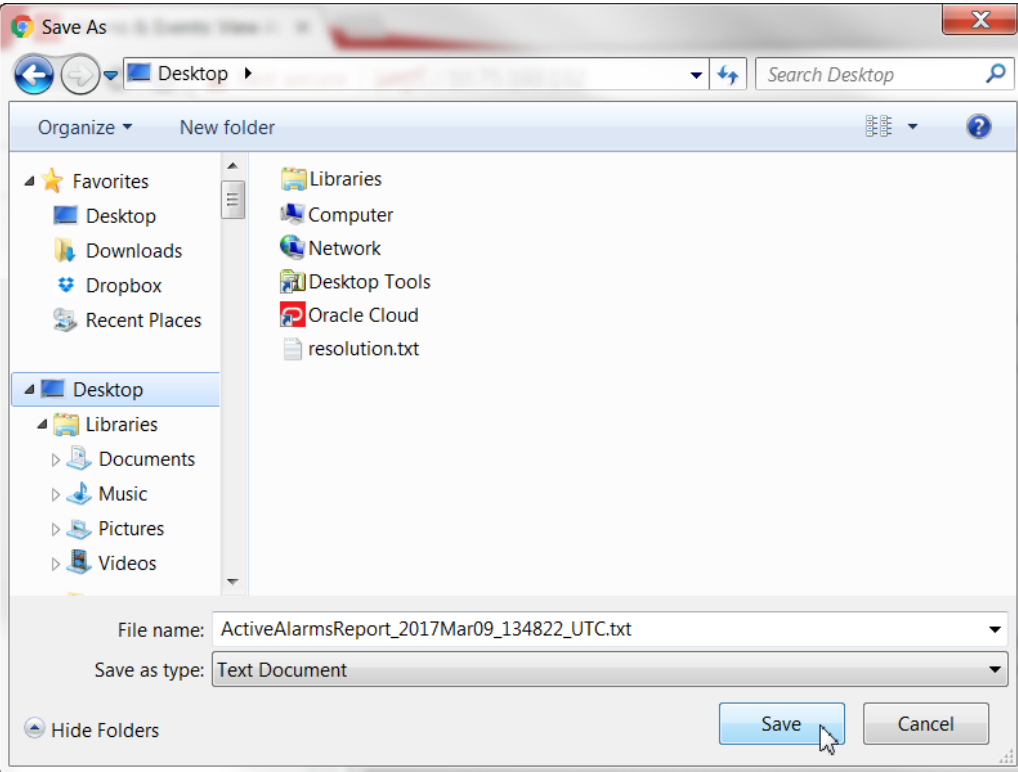
#### Procedure 1: Export Alarms at the Active NOAM [Site\_1]

Step #	Procedure	Description
<p>This procedure provides instructions on exporting alarms at the Primary Active NOAM.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 583 203 625" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XML Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>	
<p>2.</p> <input data-bbox="159 1199 203 1241" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	

Step #	Procedure	Description
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>	
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Alarm &amp; Events  → View Active</p> <p>...as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select the “Export” dialogue button from the bottom left corner of the screen.</p>	

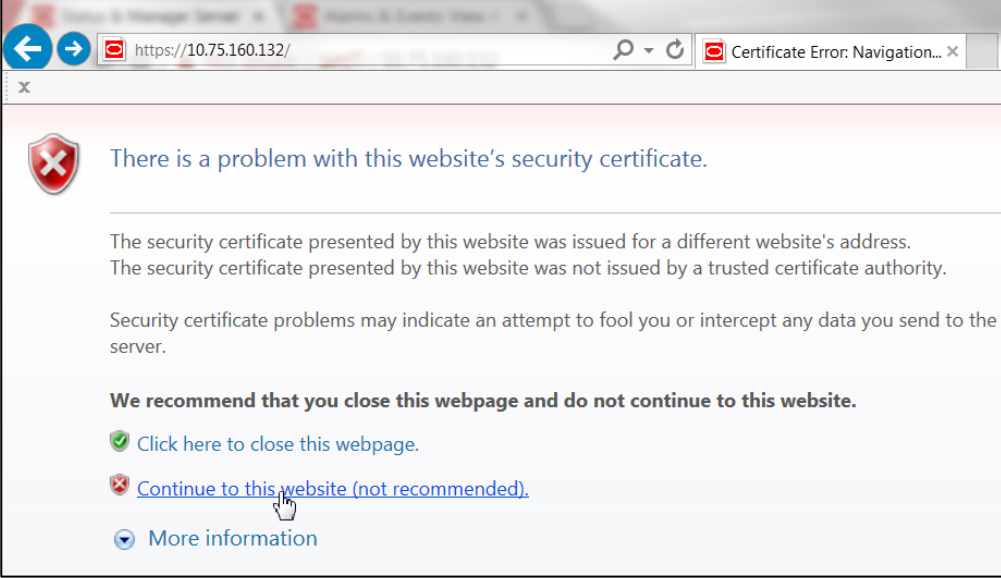

Step #	Procedure	Description
<p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 5px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>Click the “Ok” button at the bottom of the screen.</p>	
<p>7.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 5px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>The name of the exported Alarms CSV file will appear in the banner under the “Tasks” heading at the top of the right panel.</p> <p><b>NOTE:</b> Depending on the product version, the user may have to <b>click</b> on the “Tasks” heading in the banner in order to see the output dialogue box.</p>	

Step #	Procedure	Description
<p>8.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Record the filename of Alarms CSV file generated in the space provided to the right.</p> <p><b>NOTE:</b> Depending on the product version, the file suffix may vary (e.g. csv, csv.gz, etc.).</p>	<p><b>Example:</b> <code>Alarms_&lt;yyyymmdd&gt; - &lt;hhmmss&gt; - &lt;TimeZone&gt;_&lt;Task_ID&gt;.csv.gz</code></p> <p>_____ .CSV.GZ</p>
<p>9.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Select the “Report” dialogue button from the bottom left corner of the screen.</p>	
<p>10.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) An “Alarms &amp; Events” Report will be generated in the right panel displaying all <b>Active</b> alarms.</p> <p>2) Select the “Save” dialogue button from the bottom/middle of the right panel.</p>	

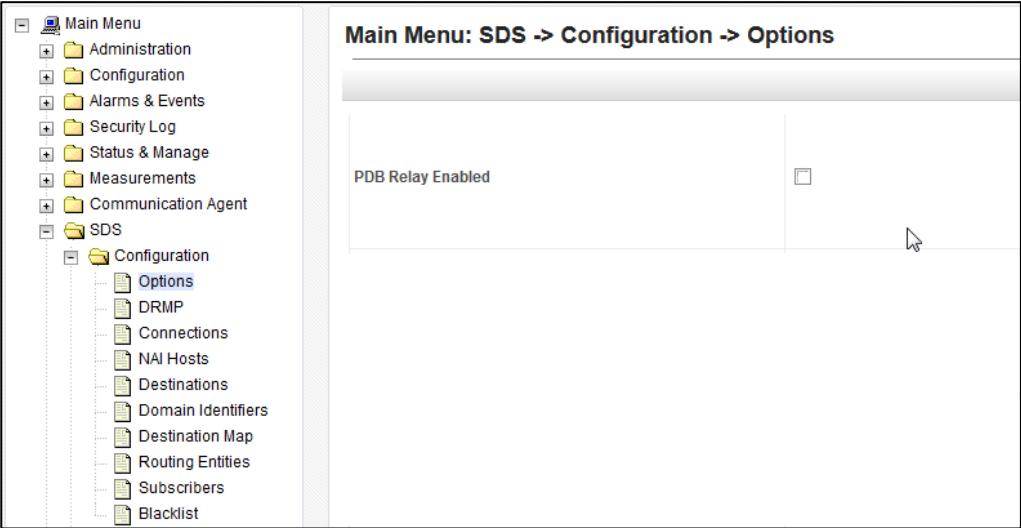
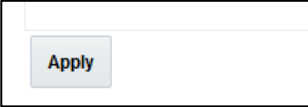
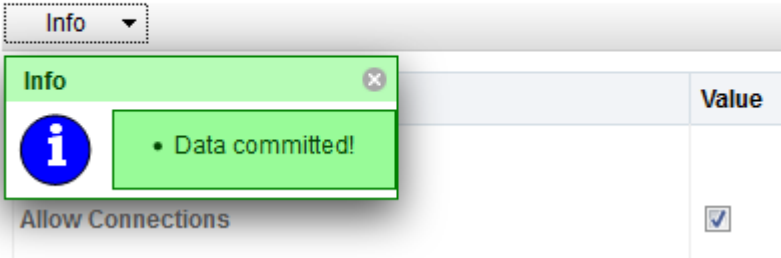
Step #	Procedure	Description
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Depending on the web browser, a “Save” file confirmation pop-up box may appear on the screen at this time (<i>some examples are shown to the right</i>).</p> <p>If so, select and click the “Save / Save File” dialogue button on the pop-up confirmation box.</p>	 <p>The top screenshot shows a browser save dialog with the filename 'UTC.txt from 10.75.160.132?' and buttons for 'Open', 'Save', and 'Cancel'. The 'Save' button is highlighted with a mouse cursor.</p> <p>The bottom screenshot shows a Firefox dialog titled 'Opening ActiveAlarmsReport_2017Mar09_133310.UTC.txt'. It states 'You have chosen to open: ActiveAlarmsReport_2017Mar09_133310.UTC.txt which is: Text Document (561 bytes) from: https://10.75.160.132'. It asks 'What should Firefox do with this file?' with options: 'Open with Notepad (default)', 'Save File' (selected), and 'Do this automatically for files like this from now on.' (unchecked). 'OK' and 'Cancel' buttons are at the bottom.</p>
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select a directory on the local disk drive to store the <i>Active Alarms &amp; Events</i> Report file and click the “Save” dialogue button.</p>	 <p>The screenshot shows a Windows 'Save As' dialog box. The current location is 'Desktop'. The file name is 'ActiveAlarmsReport_2017Mar09_134822.UTC.txt' and the file type is 'Text Document'. The 'Save' button is highlighted with a mouse cursor.</p>
<p><b>This Procedure has been completed. Return to <a href="#">Figure 1</a>.</b></p>		

## 4.2 Disable Global Provisioning / PDB Relay Verification

### Procedure 2: Disable Global Provisioning / PDB Relay Verification [Site\_1]


Step#	Procedure	Description
<p>This procedure provides instructions on “Disabling Global Provisioning” at the Primary NOAM GUI.</p> <p>Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XML Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p>“Continue to this website (not recommended).”</p>	
<p>2.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	



Step#	Procedure	Description
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>	

Step#	Procedure	Description
<p>4.</p>	<p><b>Primary NOAM VIP: Disable PDB Relay.</b></p> <p><b>Main Menu</b>  <b>→ Configurations</b>  <b>→ Options</b></p> <p>...as shown on the right.</p>	<p>Go to <b>Configurations -&gt; Options</b></p> <p>Uncheck <b>PDB Relay Enabled</b> option box.</p>  <p>The screenshot shows a tree view on the left with 'Options' selected under 'SDS'. The main area shows 'PDB Relay Enabled' with an unchecked checkbox.</p> <p>Click <b>Apply</b>.</p>  <p>The following confirmation message is received:</p> <p><b>Main Menu: SDS -&gt; Configuration -&gt; Options</b></p>  <p>The confirmation message is a green box with an 'i' icon and the text 'Data committed!'. It is overlaid on a table with columns 'Info' and 'Value'. The table row shows 'Allow Connections' with a checked checkbox.</p>



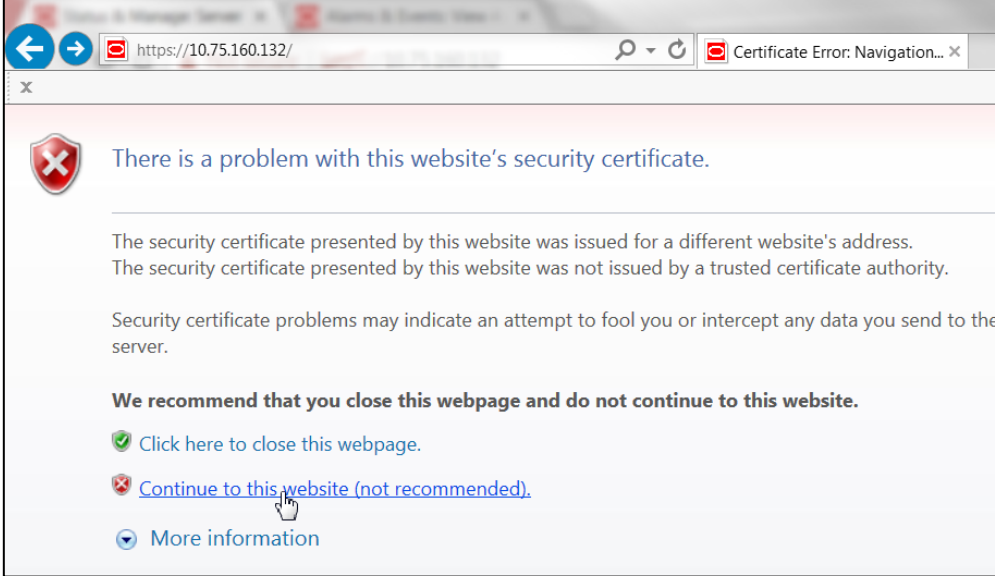

Step#	Procedure	Description
5. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Database</b></p> <p>...as shown on the right.</p>	
6. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) Select the “<b>Disable Provisioning</b>” dialogue button located at the bottom of the right panel.</p> <p>2) Click “<b>OK</b>” on the pop-up confirmation dialogue box.</p>	
7. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>A <b>Warning banner</b> message should appear indicating that “Global Provisioning has been manually disabled”.</p> <p><b>NOTE: Event(s) 10008 will appear at this time and can be safely ignored.</b></p>	
		<ul style="list-style-type: none"> <li>• FOR <b>DSR</b> SYSTEMS, THIS PROCEDURE HAS BEEN COMPLETED. <b>RETURN TO FIGURE 1</b> FOR NEXT STEPS.</li> <li>• FOR <b>SDS</b> SYSTEMS ONLY, CONTINUE WITH <b>STEP 8</b> OF THIS PROCEDURE.</li> </ul>

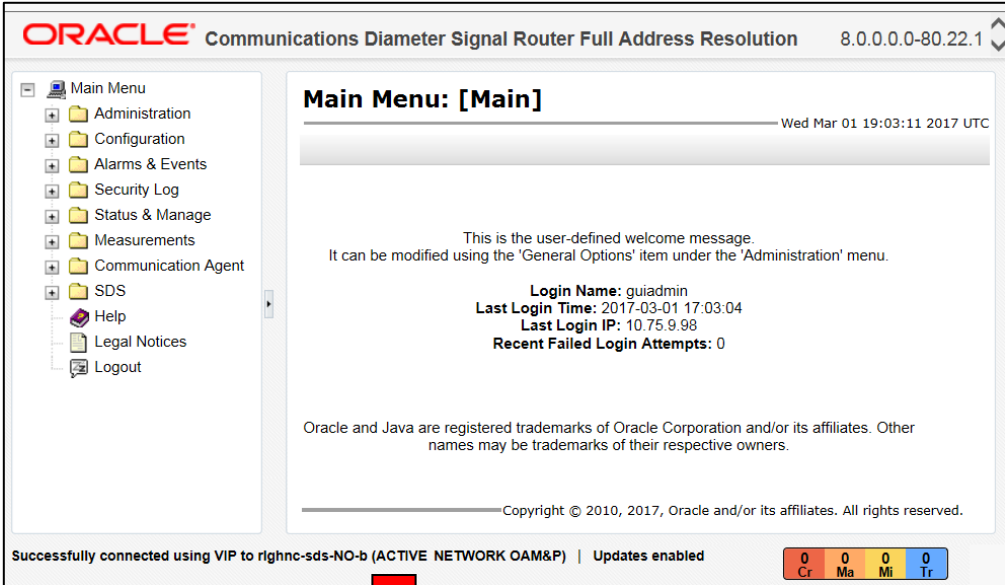
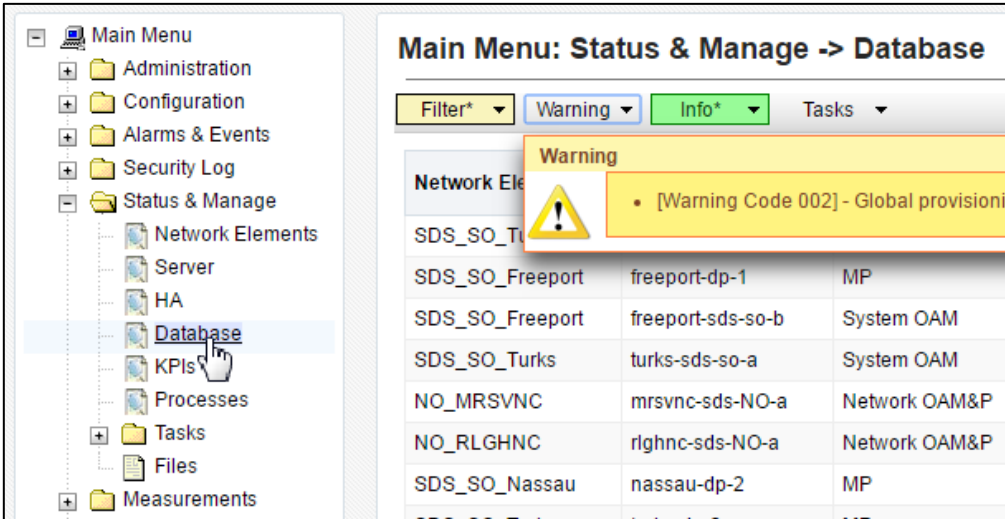
Step#	Procedure	Description
8. <input type="checkbox"/>	<p><b>SDS Systems Only (Steps 8 - 15):</b></p> <p><b>Primary NOAM VIP:</b></p> <p>1) Access the command prompt (CLI).</p> <p>2) Log into the server as the "admusr" user.</p> <p><b>NOTE:</b> <i>The password will not appear on the screen as the characters are typed.</i></p>	<p>rlghnc-sds-NO-b login: <b>admusr</b>                      Password: <b>&lt;admusr_password&gt;</b></p>
9. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Output similar to that shown on the right will appear as the server returns to a command prompt.</p>	<p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod [admusr@rlghnc-sds-NO-b ~]\$</pre>
10. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Confirm that you are connected to the <b>Primary Active NOAM Server</b> which will be indicated by an entry showing "<b>VIP Active</b>".</p>	<pre>[admusr@rlghnc-sds-NO-b ~]\$ hostname rlghnc-sds-NO-b [admusr@rlghnc-sds-NO-b ~]\$ ha.mystate -i  grep VIP VIP Act/Act rlghnc-sds-NO-b 0 0302:235736.946 [admusr@rlghnc-sds-NO-b ~]\$</pre>
11. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Verify the value for <b>pdbRelayEnabled</b>.</p>	<pre>[admusr@rlghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayEnabled'" TRUE [admusr@rlghnc-sds-NO-b ~]\$</pre>
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li><b>IF THE VALUE = FALSE</b>, THEN THIS PROCEDURE HAS BEEN COMPLETED. <b>RETURN TO FIGURE 1</b> FOR NEXT STEPS.</li> <li><b>IF THE VALUE = TRUE</b>, CONTINUE WITH <b>STEP 12</b> OF THIS PROCEDURE.</li> </ul> </div>		
12. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Retrieve the <b>pdbRelay timestamp</b>.</p>	<pre>[admusr@rlghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayMsgLogTimeStamp'" 1524776142883 [admusr@rlghnc-sds-NO-b ~]\$</pre>
13. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Record the value for the <b>pdbRelay timestamp</b> retrieved in the previous step.</p>	<p><b>pdbRelayMsgLogTimeStamp:</b></p> <p>_____</p>

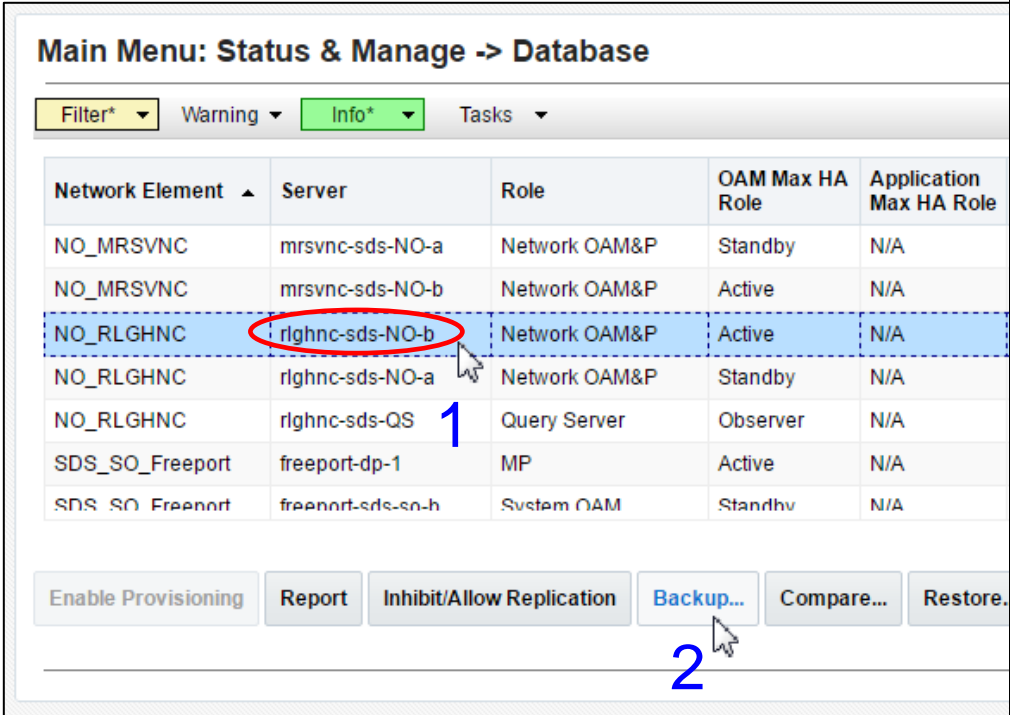
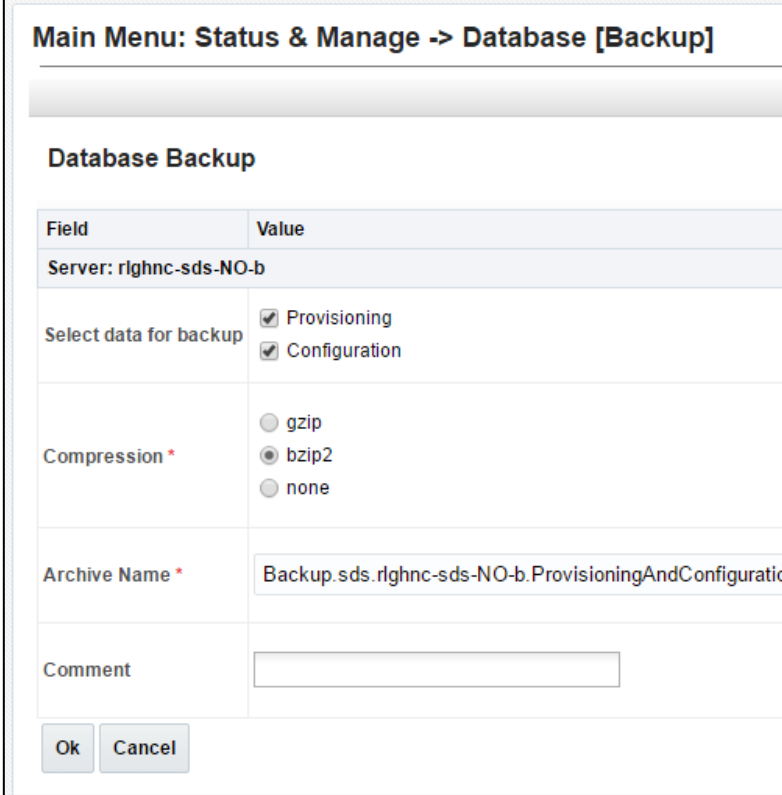
Step#	Procedure	Description
		<ul style="list-style-type: none"> <li>• <b>WAIT 30 SECONDS BEFORE EXECUTING THE NEXT STEP.</b></li> </ul>
<p>14.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b> Retrieve the <b>pdbRelay timestamp</b> again.</p>	<pre>[admusr@rghnc-sds-NO-b ~]\$ iqt -zhp -fvalue ProvOptions where "var='pdbRelayMsgLogTimeStamp'"</pre> <p style="text-align: center;"><b>1524776142883</b></p> <pre>[admusr@rghnc-sds-NO-b ~]\$</pre>
<p>15.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b> Record the value for the <b>pdbRelay timestamp</b> retrieved in the previous step.</p>	<p><b>pdbRelayMsgLogTimeStamp:</b></p> <p>_____</p>
		<ul style="list-style-type: none"> <li>• <b>VERIFY THAT THE <b>TIMESTAMPS</b> RECORDED IN STEPS 13 AND 15 OF THIS PROCEDURE ARE AN <b>EXACT MATCH</b>.</b></li> <li>• <b>IF THE VALUES DO NOT MATCH, REPEAT STEPS 12 THRU 15.</b></li> <li>• <b>DO NOT RETURN TO FIGURE 1 UNTIL TWO MATCHING TIMESTAMPS ARE RECORDED.</b></li> </ul>
<p>This Procedure has been completed. Return to <b>Figure 1</b>.</p>		

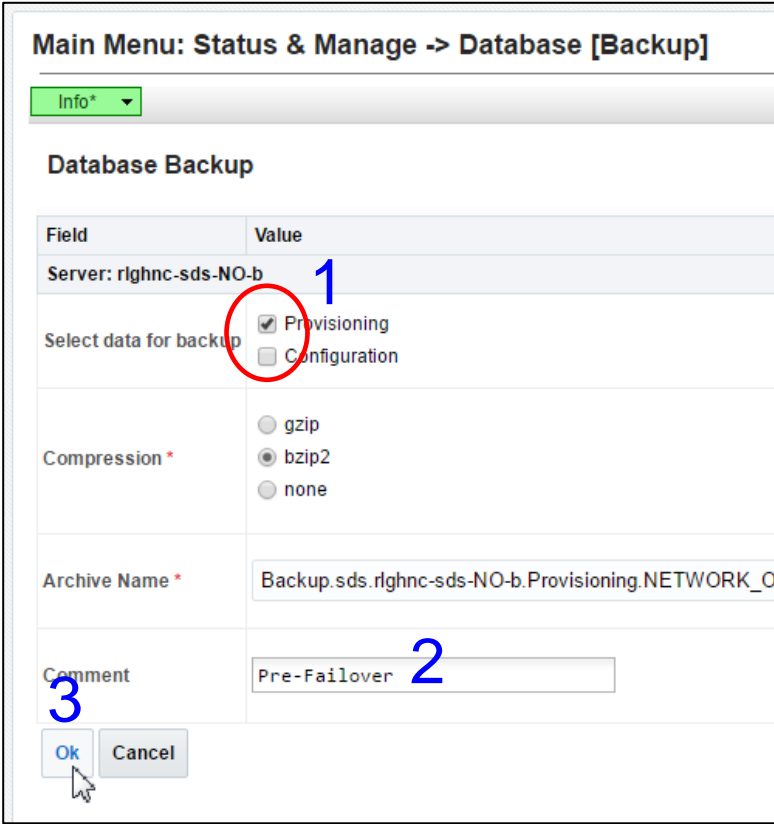
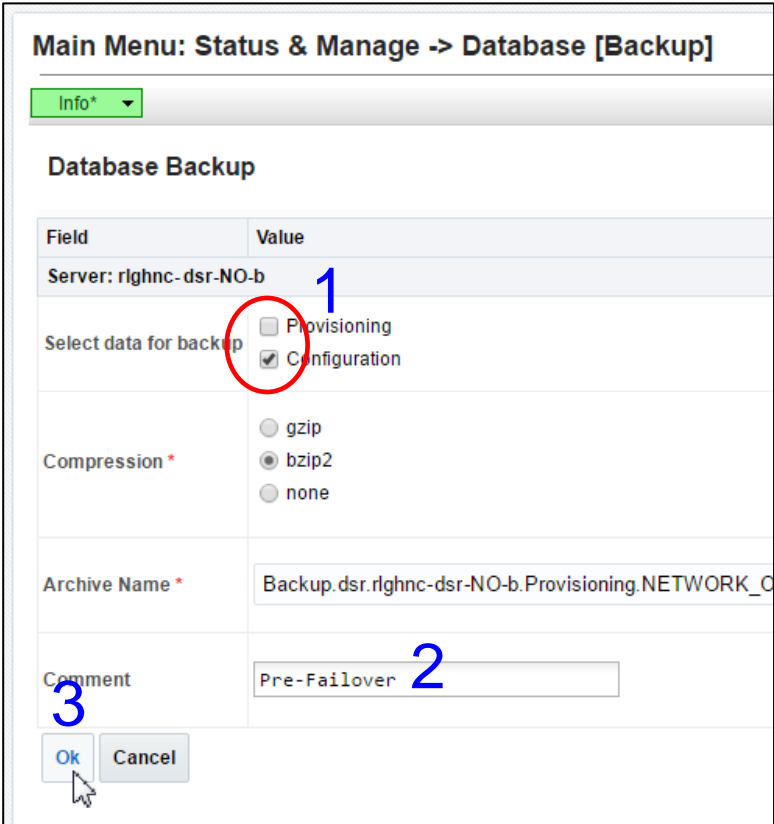
### 4.3 Database Backup

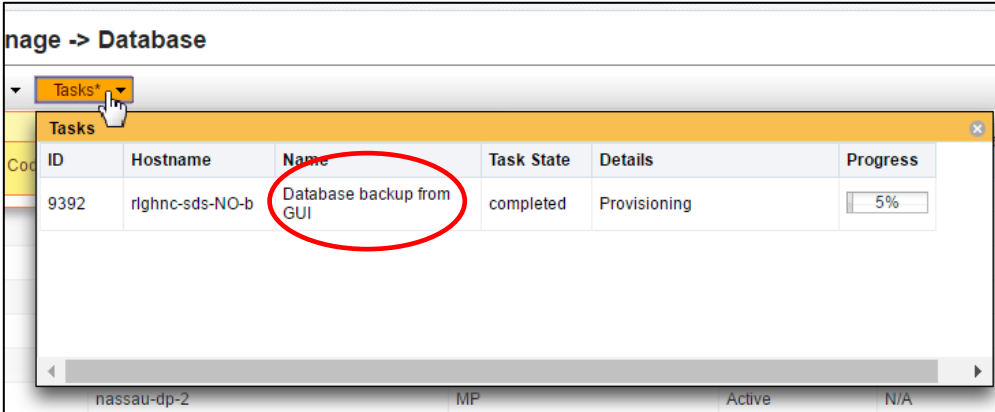
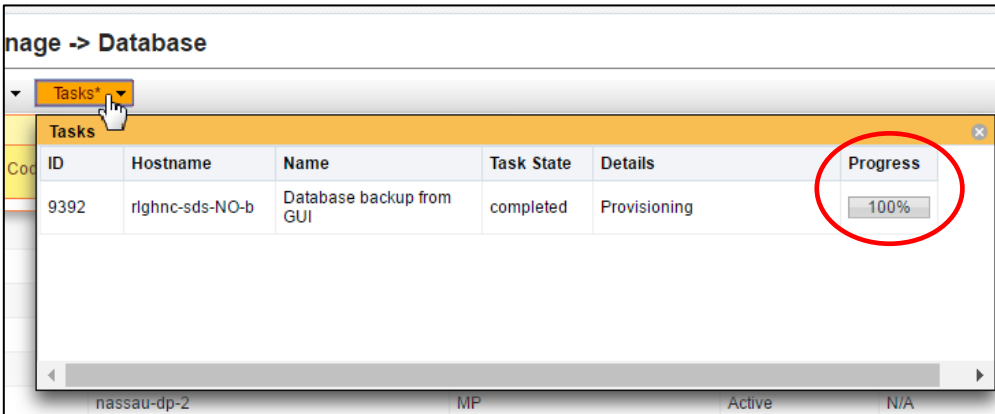
#### Procedure 3: Database Backup [Site\_1]

Step#	Procedure	Description
<p>This procedure provides instructions on performing database backup at the Primary Active NOAM.</p> <p>Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 510 203 556" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XMI Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>	
<p>2.</p> <input data-bbox="159 1119 203 1165" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	

Step#	Procedure	Description																								
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the <b>Active NOAM server</b> (hostname) on the “<b>ACTIVE NETWORK OAM&amp;P</b>” NE.</p>	 <p>ORACLE Communications Diameter Signal Router Full Address Resolution 8.0.0.0.0-80.22.1</p> <p>Main Menu: [Main] Wed Mar 01 19:03:11 2017 UTC</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu.</p> <p>Login Name: guiadmin Last Login Time: 2017-03-01 17:03:04 Last Login IP: 10.75.9.98 Recent Failed Login Attempts: 0</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2017, Oracle and/or its affiliates. All rights reserved.</p> <p>Successfully connected using VIP to rlgnc-sds-NO-b (ACTIVE NETWORK OAM&amp;P)   Updates enabled</p> <p>0 Cr 0 Ma 0 Mi 0 Tr</p>																								
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Database</b></p> <p>...as shown on the right.</p>	 <p>Main Menu: Status &amp; Manage -&gt; Database</p> <p>Filter* Warning Info* Tasks</p> <p>Warning [Warning Code 002] - Global provisioning</p> <table border="1"> <tr> <td>Network Ele</td> <td>SDS_SO_Turks</td> <td>turks-sds-so-a</td> <td>System OAM</td> </tr> <tr> <td></td> <td>SDS_SO_Freepo</td> <td>freeport-sds-so-b</td> <td>System OAM</td> </tr> <tr> <td></td> <td>SDS_SO_Turks</td> <td>turks-sds-so-a</td> <td>System OAM</td> </tr> <tr> <td></td> <td>NO_MRSVNC</td> <td>mrsvnc-sds-NO-a</td> <td>Network OAM&amp;P</td> </tr> <tr> <td></td> <td>NO_RLGHNC</td> <td>rlghnc-sds-NO-a</td> <td>Network OAM&amp;P</td> </tr> <tr> <td></td> <td>SDS_SO_Nassau</td> <td>nassau-dp-2</td> <td>MP</td> </tr> </table>	Network Ele	SDS_SO_Turks	turks-sds-so-a	System OAM		SDS_SO_Freepo	freeport-sds-so-b	System OAM		SDS_SO_Turks	turks-sds-so-a	System OAM		NO_MRSVNC	mrsvnc-sds-NO-a	Network OAM&P		NO_RLGHNC	rlghnc-sds-NO-a	Network OAM&P		SDS_SO_Nassau	nassau-dp-2	MP
Network Ele	SDS_SO_Turks	turks-sds-so-a	System OAM																							
	SDS_SO_Freepo	freeport-sds-so-b	System OAM																							
	SDS_SO_Turks	turks-sds-so-a	System OAM																							
	NO_MRSVNC	mrsvnc-sds-NO-a	Network OAM&P																							
	NO_RLGHNC	rlghnc-sds-NO-a	Network OAM&P																							
	SDS_SO_Nassau	nassau-dp-2	MP																							

Step#	Procedure	Description																																								
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>1) Using the cursor, select the row containing the <b>hostname</b> of the <b>Active NOAM server</b> (previously identified in <b>Step 3</b> of this procedure).</p> <p>2) Then click the <b>"Backup..."</b> dialogue button in the bottom of the right panel.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Database</b></p> <p>Filter* Warning Info* Tasks</p> <table border="1"> <thead> <tr> <th>Network Element ▲</th> <th>Server</th> <th>Role</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> </tr> </thead> <tbody> <tr> <td>NO_MRSVNC</td> <td>mrsvnc-sds-NO-a</td> <td>Network OAM&amp;P</td> <td>Standby</td> <td>N/A</td> </tr> <tr> <td>NO_MRSVNC</td> <td>mrsvnc-sds-NO-b</td> <td>Network OAM&amp;P</td> <td>Active</td> <td>N/A</td> </tr> <tr style="border: 2px dashed blue;"> <td>NO_RLGHNC</td> <td>rghnc-sds-NO-b</td> <td>Network OAM&amp;P</td> <td>Active</td> <td>N/A</td> </tr> <tr> <td>NO_RLGHNC</td> <td>rghnc-sds-NO-a</td> <td>Network OAM&amp;P</td> <td>Standby</td> <td>N/A</td> </tr> <tr> <td>NO_RLGHNC</td> <td>rghnc-sds-QS</td> <td>Query Server</td> <td>Observer</td> <td>N/A</td> </tr> <tr> <td>SDS_SO_Freepart</td> <td>freepart-dp-1</td> <td>MP</td> <td>Active</td> <td>N/A</td> </tr> <tr> <td>SDS_SO_Freepart</td> <td>freepart-sds-so-h</td> <td>System OAM</td> <td>Standby</td> <td>N/A</td> </tr> </tbody> </table> <p>Buttons: Enable Provisioning Report Inhibit/Allow Replication Backup... Compare... Restore...</p>	Network Element ▲	Server	Role	OAM Max HA Role	Application Max HA Role	NO_MRSVNC	mrsvnc-sds-NO-a	Network OAM&P	Standby	N/A	NO_MRSVNC	mrsvnc-sds-NO-b	Network OAM&P	Active	N/A	NO_RLGHNC	rghnc-sds-NO-b	Network OAM&P	Active	N/A	NO_RLGHNC	rghnc-sds-NO-a	Network OAM&P	Standby	N/A	NO_RLGHNC	rghnc-sds-QS	Query Server	Observer	N/A	SDS_SO_Freepart	freepart-dp-1	MP	Active	N/A	SDS_SO_Freepart	freepart-sds-so-h	System OAM	Standby	N/A
Network Element ▲	Server	Role	OAM Max HA Role	Application Max HA Role																																						
NO_MRSVNC	mrsvnc-sds-NO-a	Network OAM&P	Standby	N/A																																						
NO_MRSVNC	mrsvnc-sds-NO-b	Network OAM&P	Active	N/A																																						
NO_RLGHNC	rghnc-sds-NO-b	Network OAM&P	Active	N/A																																						
NO_RLGHNC	rghnc-sds-NO-a	Network OAM&P	Standby	N/A																																						
NO_RLGHNC	rghnc-sds-QS	Query Server	Observer	N/A																																						
SDS_SO_Freepart	freepart-dp-1	MP	Active	N/A																																						
SDS_SO_Freepart	freepart-sds-so-h	System OAM	Standby	N/A																																						
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>The user will be presented with the <b>Database [Backup]</b> screen.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Database [Backup]</b></p> <p><b>Database Backup</b></p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Server:</td> <td>rghnc-sds-NO-b</td> </tr> <tr> <td>Select data for backup</td> <td><input checked="" type="checkbox"/> Provisioning <input checked="" type="checkbox"/> Configuration</td> </tr> <tr> <td>Compression *</td> <td><input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none</td> </tr> <tr> <td>Archive Name *</td> <td>Backup.sds.rghnc-sds-NO-b.ProvisioningAndConfiguratio</td> </tr> <tr> <td>Comment</td> <td><input type="text"/></td> </tr> </tbody> </table> <p>Buttons: Ok Cancel</p>	Field	Value	Server:	rghnc-sds-NO-b	Select data for backup	<input checked="" type="checkbox"/> Provisioning <input checked="" type="checkbox"/> Configuration	Compression *	<input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none	Archive Name *	Backup.sds.rghnc-sds-NO-b.ProvisioningAndConfiguratio	Comment	<input type="text"/>																												
Field	Value																																									
Server:	rghnc-sds-NO-b																																									
Select data for backup	<input checked="" type="checkbox"/> Provisioning <input checked="" type="checkbox"/> Configuration																																									
Compression *	<input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none																																									
Archive Name *	Backup.sds.rghnc-sds-NO-b.ProvisioningAndConfiguratio																																									
Comment	<input type="text"/>																																									

Step#	Procedure	Description
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>EXECUTE THIS STEP FOR SDS SYSTEMS ONLY!!!</b></p> <p><b>Primary NOAM VIP:</b></p> <p>1) Uncheck the <b>Configuration</b> checkbox so that only the <b>Provisioning</b> checkbox is selected.</p> <p>2) Enter a comment to reflect the reason for the manual backup in the comment field.</p> <p>3) Click “Ok” dialogue button.</p>	
<p>8.</p>	<p><b>EXECUTE THIS STEP FOR DSR SYSTEMS ONLY!!!</b></p> <p><b>Primary NOAM VIP:</b></p> <p>1) The <b>Provisioning</b> checkbox cannot be selected on DSR. Verify that the <b>Configuration</b> checkbox is selected.</p> <p>2) Enter a comment to reflect the reason for the manual backup in the comment field.</p> <p>3) Click “Ok” dialogue button.</p>	

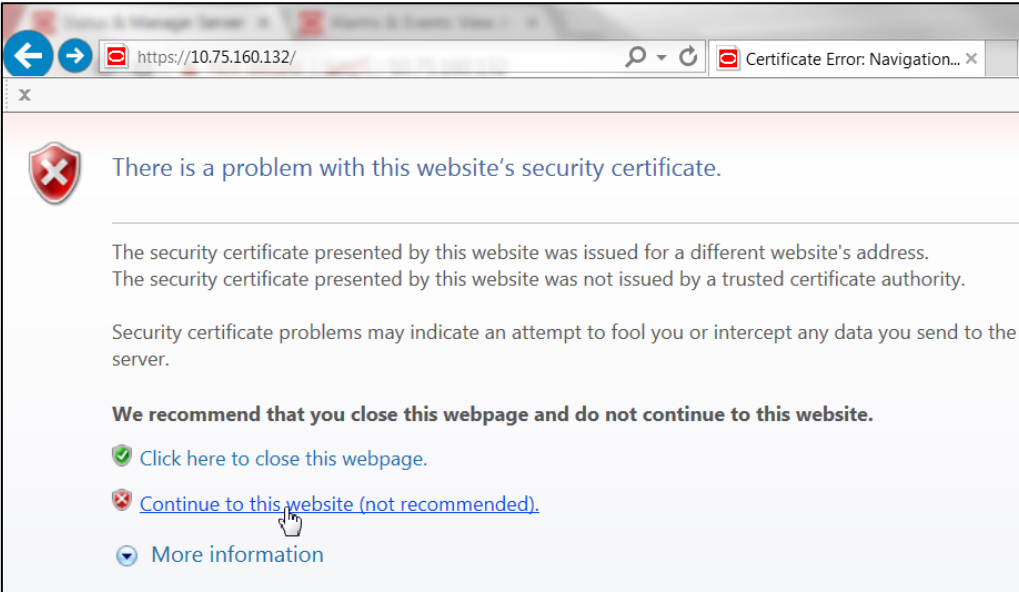

Step#	Procedure	Description												
<p>9.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>Primary NOAM VIP:</b> Click on the <b>Tasks</b> tab to verify that a new <b>“Database backup from GUI”</b> task has been created.</p>	 <p>The screenshot shows a window titled 'Tasks' with a table of task information. The 'Name' column for the task 'Database backup from GUI' is circled in red. The progress bar for this task is at 5%.</p> <table border="1" data-bbox="540 352 1529 441"> <thead> <tr> <th>ID</th> <th>Hostname</th> <th>Name</th> <th>Task State</th> <th>Details</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>9392</td> <td>righnc-sds-NO-b</td> <td>Database backup from GUI</td> <td>completed</td> <td>Provisioning</td> <td>5%</td> </tr> </tbody> </table>	ID	Hostname	Name	Task State	Details	Progress	9392	righnc-sds-NO-b	Database backup from GUI	completed	Provisioning	5%
ID	Hostname	Name	Task State	Details	Progress									
9392	righnc-sds-NO-b	Database backup from GUI	completed	Provisioning	5%									
<p>10.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>Primary NOAM VIP:</b> Use the <b>Tasks</b> tab to monitor the status in the <b>“Progress”</b> column until it shows <b>“100%”</b>.</p> <p><b>NOTE:</b> Depending on the release version, the User may have to periodically click the <b>[Status &amp; Manage → Database]</b> menu option in order for the information on the <b>Tasks</b> tab to refresh and show real-time status.</p>	 <p>The screenshot shows the same 'Tasks' window as in step 9, but the progress bar for the task 'Database backup from GUI' is now at 100% and is circled in red.</p> <table border="1" data-bbox="540 846 1529 934"> <thead> <tr> <th>ID</th> <th>Hostname</th> <th>Name</th> <th>Task State</th> <th>Details</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>9392</td> <td>righnc-sds-NO-b</td> <td>Database backup from GUI</td> <td>completed</td> <td>Provisioning</td> <td>100%</td> </tr> </tbody> </table>	ID	Hostname	Name	Task State	Details	Progress	9392	righnc-sds-NO-b	Database backup from GUI	completed	Provisioning	100%
ID	Hostname	Name	Task State	Details	Progress									
9392	righnc-sds-NO-b	Database backup from GUI	completed	Provisioning	100%									
<p><b>This Procedure has been completed. Return to <span style="background-color: yellow;">Figure 1</span>.</b></p>														

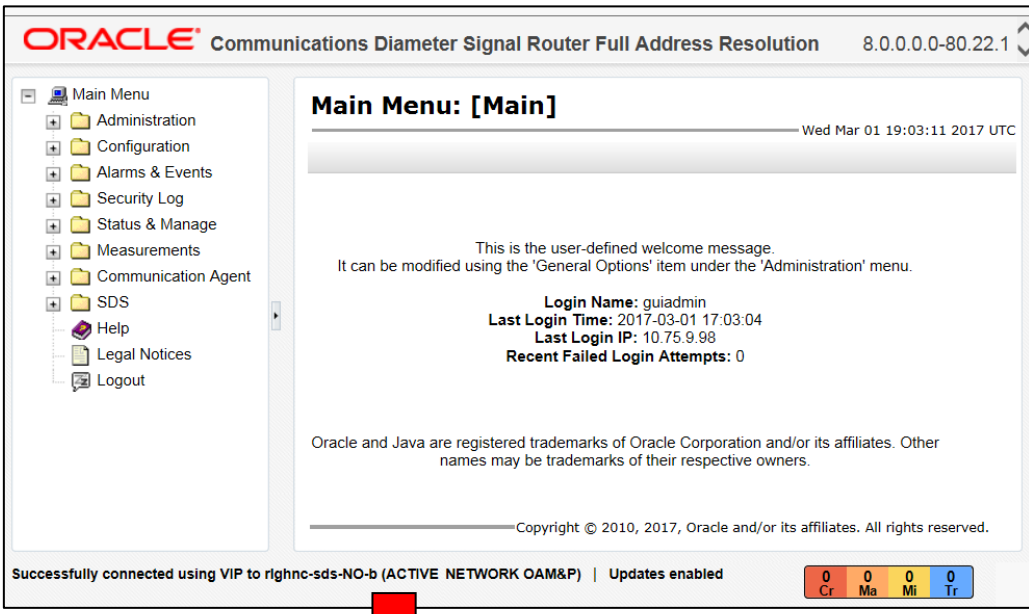
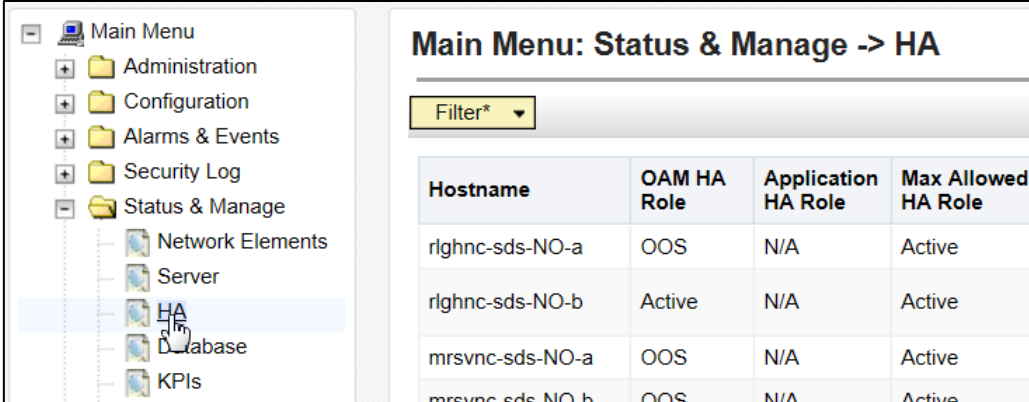


## 5. Failover Procedures

### 5.1 Demoting the Active NOAM from Primary to Secondary

#### Procedure 4: Demoting the Active NOAM from Primary to Secondary [Site\_1]

Step#	Procedure	Description
<p>This procedure provides instructions on Stopping the Application Software on the Primary and DR NOAM.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 604 203 646" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XML Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>	
<p>2.</p> <input data-bbox="159 1234 203 1276" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	

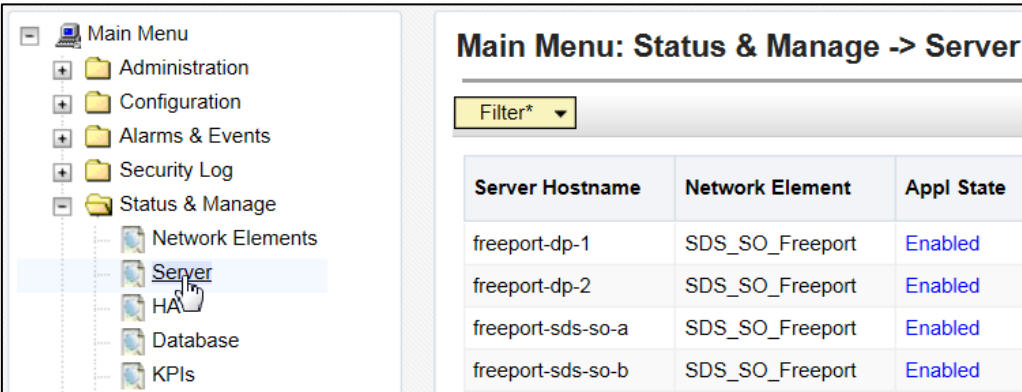
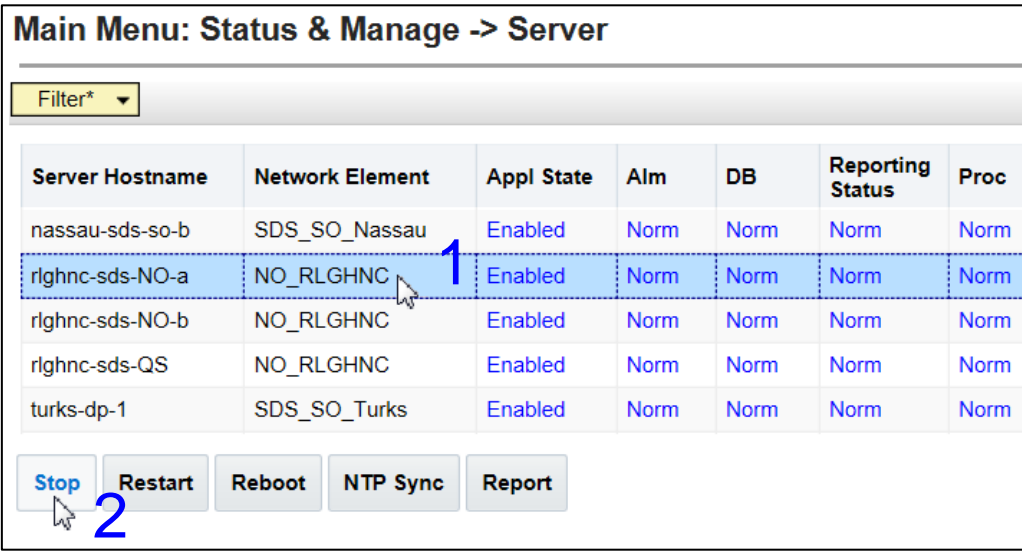

Step#	Procedure	Description																				
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>	 <p>Successfully connected using VIP to rlgnc-sds-NO-b (ACTIVE NETWORK OAM&amp;P)   Updates enabled</p>																				
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>rlgnc-sds-NO-a</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>rlgnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>mrsvnc-sds-NO-a</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	rlgnc-sds-NO-a	OOS	N/A	Active	rlgnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	OOS	N/A	Active	mrsvnc-sds-NO-b	OOS	N/A	Active
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role																			
rlgnc-sds-NO-a	OOS	N/A	Active																			
rlgnc-sds-NO-b	Active	N/A	Active																			
mrsvnc-sds-NO-a	OOS	N/A	Active																			
mrsvnc-sds-NO-b	OOS	N/A	Active																			

Step#	Procedure	Description																																										
5. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Using the information shown in the browser window...</p> <p>1) Use the Server <b>hostname</b> shown in the bottom banner for the <b>“ACTIVE NETWORK OAM&amp;P”</b> to identify the current <b>“Primary”</b> NOAM site.</p> <p>Now that we know which NOAM site is Primary...</p> <p>2) Identify the <b>Primary Active, Primary Standby, Secondary Active (DR)</b> and <b>Secondary Standby</b> NOAM Servers.</p>	<div style="border: 1px solid gray; padding: 5px;"> <p style="text-align: center; font-size: 2em; color: blue;">1</p> <p>Successfully connected using <span style="border: 2px solid red; border-radius: 50%; padding: 2px;">VIP to rlgnc-sds-NO-b (ACTIVE NETWORK OAM&amp;P)</span> Updates enabled</p> <p style="text-align: center;"><b>NOTE:</b> The server <i>hostname</i> of the <b>“ACTIVE NETWORK OAM&amp;P”</b> identifies the current <b>“Primary”</b> NOAM site (e.g. rlgnc).</p> <p><b>Main Menu: Status &amp; Manage -&gt; HA</b></p> <div style="border: 1px solid gray; padding: 5px;"> <p>Filter* ▾</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>rlgnc-sds-NO-a</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>rlgnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>rlgnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>rlgnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>mrsvnc-sds-NO-a</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>rlgnc-sds-QS</td> <td>Observer</td> <td>N/A</td> <td>Observer</td> <td>rlgnc-sds-NO-a rlgnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Query Server</td> </tr> </tbody> </table> </div> <p style="text-align: center; font-size: 2em; color: blue;">2</p> </div>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	rlgnc-sds-NO-a	Standby	N/A	Active	rlgnc-sds-NO-b	NO_RLGHNC	Network OAM&P	rlgnc-sds-NO-b	Active	N/A	Active	rlgnc-sds-NO-a	NO_RLGHNC	Network OAM&P	mrsvnc-sds-NO-a	Standby	N/A	Active	mrsvnc-sds-NO-b	NO_MRSVNC	Network OAM&P	mrsvnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	NO_MRSVNC	Network OAM&P	rlgnc-sds-QS	Observer	N/A	Observer	rlgnc-sds-NO-a rlgnc-sds-NO-b	NO_RLGHNC	Query Server
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																																						
rlgnc-sds-NO-a	Standby	N/A	Active	rlgnc-sds-NO-b	NO_RLGHNC	Network OAM&P																																						
rlgnc-sds-NO-b	Active	N/A	Active	rlgnc-sds-NO-a	NO_RLGHNC	Network OAM&P																																						
mrsvnc-sds-NO-a	Standby	N/A	Active	mrsvnc-sds-NO-b	NO_MRSVNC	Network OAM&P																																						
mrsvnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	NO_MRSVNC	Network OAM&P																																						
rlgnc-sds-QS	Observer	N/A	Observer	rlgnc-sds-NO-a rlgnc-sds-NO-b	NO_RLGHNC	Query Server																																						

**!!! WARNING!!! DO NOT SKIP THE FOLLOWING STEP!**

**“Active/Standby” states for each NOAM server must be recorded as it is Critical that the SW on each server be stopped in the exact order specified in Steps 8 - 12 of this procedure.**

6. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Record the hostnames of the <b>Active / Standby</b> NOAM servers at the <b>“Primary”</b> and <b>“Secondary”</b> (DR) NOAM sites in the space provided.</p>	<p>Site_1 = Primary_NOAM (Active) = _____</p> <p>Site_1 = Primary_NOAM (Standby) = _____</p> <hr/> <p>Site_2 = DR_NOAM (Active) = _____</p> <p>Site_2 = DR_NOAM (Standby) = _____</p>
--------------------------------	---	---

Step#	Procedure	Description																																										
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p>	 <table border="1" data-bbox="971 380 1523 611"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>freeport-dp-1</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-dp-2</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-a</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-b</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	freeport-dp-1	SDS_SO_Freeport	Enabled	freeport-dp-2	SDS_SO_Freeport	Enabled	freeport-sds-so-a	SDS_SO_Freeport	Enabled	freeport-sds-so-b	SDS_SO_Freeport	Enabled																											
Server Hostname	Network Element	Appl State																																										
freeport-dp-1	SDS_SO_Freeport	Enabled																																										
freeport-dp-2	SDS_SO_Freeport	Enabled																																										
freeport-sds-so-a	SDS_SO_Freeport	Enabled																																										
freeport-sds-so-b	SDS_SO_Freeport	Enabled																																										
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b> Based on the information recorded in <b>Step 6</b> of this procedure...</p> <p>Perform the below sub-steps on the <b>Primary NOAM "Standby" Server</b>.</p> <p>1) Select the server in the right panel (<i>highlight will occur</i>).</p> <p>2) Click the "Stop" dialogue button in the bottom of the right panel.</p> <p>3) Click "OK" in the pop-up confirmation dialogue box.</p> <p><b>NOTE:</b> Alarms will begin to generate at this time including but not limited to <b>Event ID(s): 10008, 10075 &amp; 31201</b>.</p>	 <table border="1" data-bbox="529 831 1523 1104"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>nassau-sds-so-b</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="border: 2px dashed blue;"> <td>righnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>righnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>righnc-sds-QS</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>turks-dp-1</td> <td>SDS_SO_Turks</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot, NTP Sync, Report</p>  <p>Message from webpage</p> <p>Are you sure you wish to stop application software on the following server(s)? righnc-sds-NO-a</p> <p>Buttons: OK, Cancel</p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	nassau-sds-so-b	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm	righnc-sds-NO-a	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	righnc-sds-NO-b	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	turks-dp-1	SDS_SO_Turks	Enabled	Norm	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																						
nassau-sds-so-b	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm																																						
righnc-sds-NO-a	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																						
righnc-sds-NO-b	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																						
righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																						
turks-dp-1	SDS_SO_Turks	Enabled	Norm	Norm	Norm	Norm																																						

Step#	Procedure	Description																																										
<p>9.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>After the screen refreshes, verify that the server now shows an <b>Appl State</b> value of <b>“Disabled”</b> and a <b>Proc</b> value of <b>“Man”</b>.</p> <p><b>NOTE:</b> <i>Although the screen will automatically refresh after several seconds, the user may refresh it immediately if desired by reselecting the left menu option for the [Main Menu: Status &amp; Manage → Server].</i></p>	<p><b>Main Menu: Status &amp; Manage → Server</b></p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>nassau-sds-so-b</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>rlghnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>rlghnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Warn</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>rlghnc-sds-QS</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>turks-dp-1</td> <td>SDS_SO_Turks</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	nassau-sds-so-b	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm	rlghnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man	rlghnc-sds-NO-b	NO_RLGHNC	Enabled	Warn	Warn	Norm	Norm	rlghnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm	turks-dp-1	SDS_SO_Turks	Enabled	Norm	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																						
nassau-sds-so-b	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm																																						
rlghnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man																																						
rlghnc-sds-NO-b	NO_RLGHNC	Enabled	Warn	Warn	Norm	Norm																																						
rlghnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																						
turks-dp-1	SDS_SO_Turks	Enabled	Norm	Norm	Norm	Norm																																						
<p>10.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>“Stop” the SW on the <b>Primary NOAM “Active”</b> Server.</p>	<p>Repeat <b>Steps 8 - 9</b> of this Procedure for the <b>Primary NOAM “Active”</b> Server.</p>																																										
<p>11.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>“Stop” the SW on the <b>DR NOAM “Standby”</b> Server.</p>	<p>Repeat <b>Steps 8 - 9</b> of this Procedure for the <b>DR NOAM “Standby”</b> Server.</p>																																										
<p>12.</p> <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>“Stop” the SW on the <b>DR NOAM “Active”</b> Server.</p>	<p>Repeat <b>Steps 8 - 9</b> of this Procedure for the <b>DR NOAM “Active”</b> Server.</p>																																										

Step#	Procedure	Description
13. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>1) Access the command prompt (CLI).</p> <p>2) Log into the server as the "admusr" user.</p> <p><b>NOTE:</b> The password will not appear on the screen as the characters are typed.</p>	<p>rlghnc-sds-NO-b login: <b>admusr</b>                      Password: <b>&lt;admusr_password&gt;</b></p>
14. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Output similar to that shown on the right will appear as the server returns to a command prompt.</p>	<p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>                     PRODPATH=                     RELEASE=8.6.0                     RUNID=00                     VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds                     PRODPATH=/opt/comcol/prod                     [admusr@rlghnc-sds-NO-b ~]\$                 </pre>
15. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Confirm that you are connected to the <b>Primary Active</b> NOAM Server by verifying that the server <b>hostname</b> matches the entry showing "<b>VIP Act/Act</b>".</p>	<pre>                     [admusr@rlghnc-sds-NO-b ~]\$ <b>hostname</b>                     rlghnc-sds-NO-b                     [admusr@rlghnc-sds-NO-b ~]\$ <b>ha.mystate -i  grep VIP</b>                     VIP <b>Act/Act</b> rlghnc-sds-NO-b 0 0302:235736.946                     [admusr@rlghnc-sds-NO-b ~]\$                 </pre>
16. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Verify that the current value for "<b>myClusterRole</b>" is "<b>Primary</b>".</p>	<pre>                     [admusr@rlghnc-sds-NO-b ~]\$ <b>top.myrole</b>                     myNodId=A0907.121                     myParentClusters=( )                     myClusterRole=<b>Primary</b>                     myRecognizedPrimary=A0907                     myRecognizedSecondary=A1103                     [admusr@rlghnc-sds-NO-b ~]\$                 </pre>
17. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Set the value for "<b>myClusterRole</b>" to "<b>Secondary</b>".</p>	<pre>                     [admusr@rlghnc-sds-NO-b ~]\$ <b>top.setSecondary</b>                     - Using my cluster: A0907                     - New Secondary Timestamp: 03/03/17 00:19:07.181                     - Updating To A0907.060: rlghnc-sds-NO-a                     - Updating To A0907.113: rlghnc-sds-QS                     - Updating To A0907.121: rlghnc-sds-NO-b                     - Updating To A1103.165: mrsvnc-sds-NO-b                     - Updating To A1103.223: mrsvnc-sds-NO-a                     [admusr@rlghnc-sds-NO-b ~]\$                 </pre>
18. <input type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Verify that the value for "<b>myClusterRole</b>" is now "<b>Secondary</b>".</p>	<pre>                     [admusr@rlghnc-sds-NO-b ~]\$ <b>top.myrole</b>                     myNodId=A0907.121                     myParentClusters=( )                     myClusterRole=<b>Secondary</b>                     myRecognizedPrimary=A0907                     myRecognizedSecondary=Unknown                     [admusr@rlghnc-sds-NO-b ~]\$                 </pre>

Step#	Procedure	Description
19. <input type="checkbox"/>	<b>Primary NOAM VIP:</b> Verify the current <b>PID</b> for the “ <b>apwSoapServer</b> ” process.	[admusr@rghnc-sds-NO-b ~]\$ <b>pl  grep Server</b> A <b>946215</b> apwSoapServer Up 03/02 23:52:31 3 !CMNOSIGCHK=1 apwSoapServer [admusr@rghnc-sds-NO-b ~]\$
20. <input type="checkbox"/>	<b>Primary NOAM VIP:</b> Restart the “ <b>apwSoapServer</b> ” process.	[admusr@rghnc-sds-NO-b ~]\$ <b>sudo pm.kill apwSoapServer</b> [admusr@rghnc-sds-NO-b ~]\$
21. <input type="checkbox"/>	<b>Primary NOAM VIP:</b> Verify that the <b>PID</b> for the “ <b>apwSoapServer</b> ” process has changed from the previous value shown in <b>Step 19</b> of this procedure.	[admusr@rghnc-sds-NO-b ~]\$ <b>pl  grep Server</b> A <b>951908</b> apwSoapServer Up 03/02 23:52:31 3 !CMNOSIGCHK=1 apwSoapServer [admusr@rghnc-sds-NO-b ~]\$
<b>This Procedure has been completed. Return to <a href="#">Figure 1</a>.</b>		

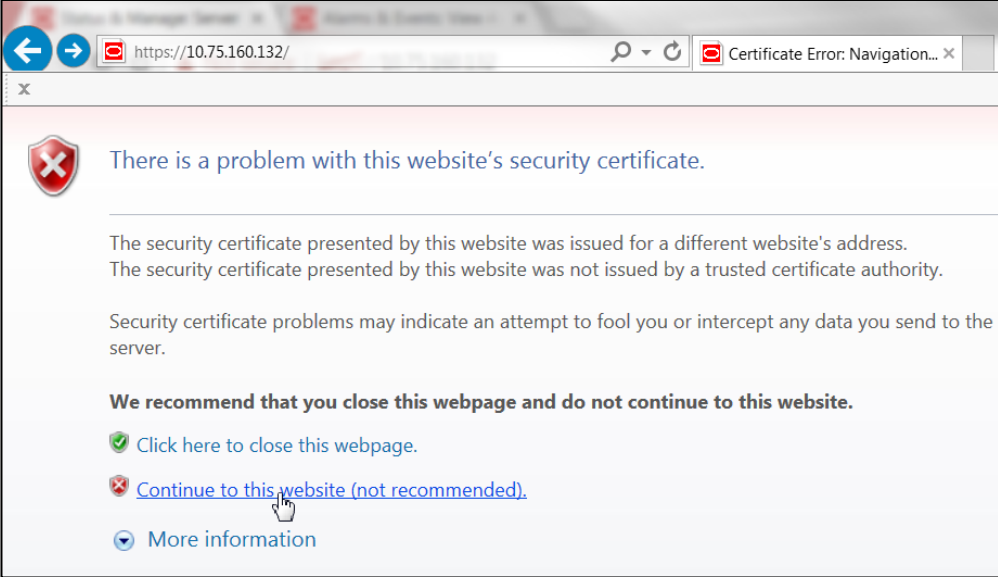

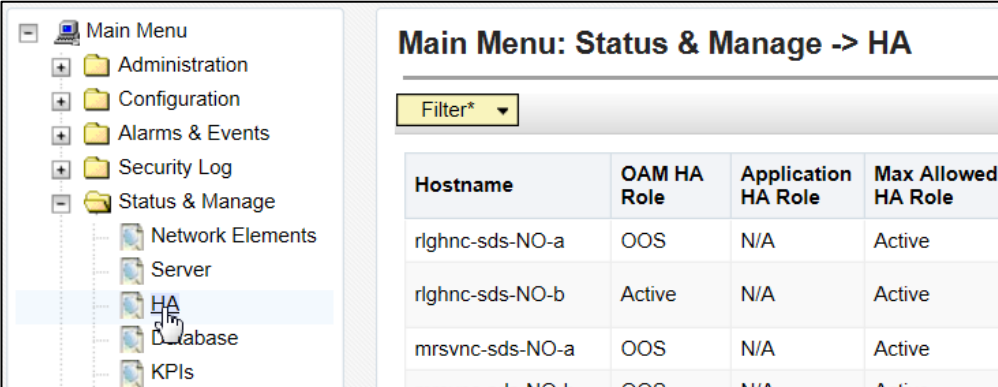
## 5.2 Promoting the DR NOAM from Secondary to Primary

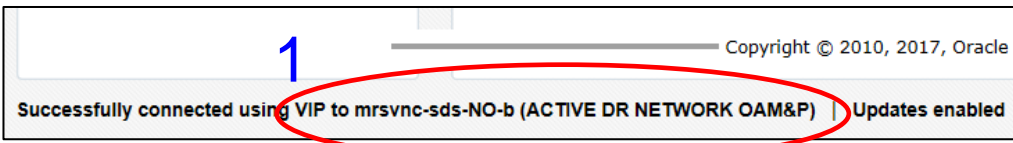
### 5.2.1 Promoting the DR NOAM from Secondary to Primary (Graceful)

#### Procedure 5: Promoting the DR NOAM from Secondary to Primary (Graceful) [Site\_2]

Step #	Procedure	Description																																																																		
<p>This procedure provides instructions on promoting the DR NOAM from Secondary to Primary.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>																																																																				
1.	<p><b>DR NOAM:</b></p> <p>1) Access the command prompt (CLI).</p> <p>2) Log into the server as the "admusr" user.</p>	<p>Establish an SSH session to the SDS/DSR DR NOAM XMI IP address and login as admusr.                      msvnc-sds-NO-b login: <b>admusr</b>                      Password: <b>&lt;admusr_password&gt;</b></p>																																																																		
2.	<p><b>DR NOAM:</b>                      Check NOAM Status</p>	<p>Execute this command to find the state of the server:</p> <pre>\$ ha.mystate [admusr@msvnc-sds-NO-b ~]\$ ha.mystate</pre> <table border="1"> <thead> <tr> <th>resourceId</th> <th>role</th> <th>node</th> <th>DC</th> <th>subResources</th> <th>lastUpdate</th> </tr> </thead> <tbody> <tr> <td>DbReplication</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.775</td> </tr> <tr> <td>VIP</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.875</td> </tr> <tr> <td>CacdProcessRes</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.873</td> </tr> <tr> <td>PDBA_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>PDBAUDIT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.875</td> </tr> <tr> <td>PDBRELAY_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>XDS_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.878</td> </tr> <tr> <td>IMPORT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>EXPORT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.877</td> </tr> <tr> <td>DPSERVER_Process</td> <td>Act/OOS</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180711:062936.051</td> </tr> </tbody> </table> <p>Execute the following commands on the Active NOAM.</p>	resourceId	role	node	DC	subResources	lastUpdate	DbReplication	Act/Act	A3374.144	*	0	180712:064445.775	VIP	Act/Act	A3374.144	*	0	180712:064445.875	CacdProcessRes	Act/Act	A3374.144	*	0	180712:064445.873	PDBA_Process	Act/Act	A3374.144	*	0	180712:064445.876	PDBAUDIT_Process	Act/Act	A3374.144	*	0	180712:064445.875	PDBRELAY_Process	Act/Act	A3374.144	*	0	180712:064445.876	XDS_Process	Act/Act	A3374.144	*	0	180712:064445.878	IMPORT_Process	Act/Act	A3374.144	*	0	180712:064445.876	EXPORT_Process	Act/Act	A3374.144	*	0	180712:064445.877	DPSERVER_Process	Act/OOS	A3374.144	*	0	180711:062936.051
resourceId	role	node	DC	subResources	lastUpdate																																																															
DbReplication	Act/Act	A3374.144	*	0	180712:064445.775																																																															
VIP	Act/Act	A3374.144	*	0	180712:064445.875																																																															
CacdProcessRes	Act/Act	A3374.144	*	0	180712:064445.873																																																															
PDBA_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
PDBAUDIT_Process	Act/Act	A3374.144	*	0	180712:064445.875																																																															
PDBRELAY_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
XDS_Process	Act/Act	A3374.144	*	0	180712:064445.878																																																															
IMPORT_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
EXPORT_Process	Act/Act	A3374.144	*	0	180712:064445.877																																																															
DPSERVER_Process	Act/OOS	A3374.144	*	0	180711:062936.051																																																															
3.	<p><input type="checkbox"/></p> <p><b>DR NOAM:</b>                      Verify that the current value for "myClusterRole" is "Secondary".</p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeId=A1103.165 myParentClusters=( ) myClusterRole=Secondary myRecognizedPrimary=A1103 myRecognizedSecondary=Unknown [admusr@mrsvnc-sds-NO-b ~]\$</pre>																																																																		
4.	<p><input type="checkbox"/></p> <p><b>DR NOAM:</b>                      Set the value for "myClusterRole" to "Primary".</p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.setPrimary - Using my cluster: A1103 - New Primary Timestamp: 03/03/17 00:50:40.986 - Updating To A0907.060: rlgnc-sds-NO-a - Updating To A0907.113: rlgnc-sds-QS - Updating To A0907.121: rlgnc-sds-NO-b - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$</pre>																																																																		
5.	<p><input type="checkbox"/></p> <p><b>DR NOAM:</b>                      Verify that the value for "myClusterRole" is now "Primary".</p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeId=A1103.165 myParentClusters=( ) myClusterRole=Primary myRecognizedPrimary=A1103 myRecognizedSecondary=A0907 [admusr@mrsvnc-sds-NO-b ~]\$</pre>																																																																		



Step #	Procedure	Description																				
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XMI Virtual IP address (VIP) assigned to <b>Primary Active NOAM site.</b></p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>																					
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>																					
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ <b>Status &amp; Manage</b></p> <p>→ <b>HA</b></p> <p>...as shown on the right.</p>	 <table border="1" data-bbox="933 1711 1529 1946"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>rlghnc-sds-NO-a</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>rlghnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>mrsvnc-sds-NO-a</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>OOS</td> <td>N/A</td> <td>Active</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	rlghnc-sds-NO-a	OOS	N/A	Active	rlghnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	OOS	N/A	Active	mrsvnc-sds-NO-b	OOS	N/A	Active
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role																			
rlghnc-sds-NO-a	OOS	N/A	Active																			
rlghnc-sds-NO-b	Active	N/A	Active																			
mrsvnc-sds-NO-a	OOS	N/A	Active																			
mrsvnc-sds-NO-b	OOS	N/A	Active																			

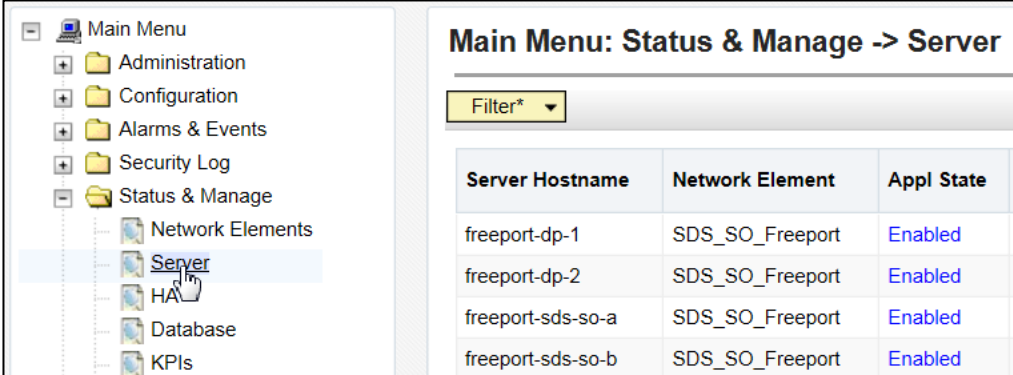
Step #	Procedure	Description																																										
9. <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Using the information shown in the browser window...</p> <p>1) Use the Server <b>hostname</b> shown in the bottom banner for the <b>“ACTIVE NETWORK OAM&amp;P”</b> to identify the current <b>“Primary”</b> NOAM site.</p> <p>Now that we know which NOAM site is Primary...</p> <p>2) Identify the <b>Primary Active, Primary Standby, Secondary Active (DR) and Secondary Standby</b> NOAM Servers.</p>	 <p><b>NOTE:</b> The server <b>hostname</b> of the <b>“ACTIVE NETWORK OAM&amp;P”</b> identifies the current <b>“Primary”</b> NOAM site (e.g. mrsvnc).</p> <p>Main Menu: Status &amp; Manage -&gt; HA</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>rlghnc-sds-NO-a</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>rlghnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>rlghnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>rlghnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>mrsvnc-sds-NO-a</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>rlghnc-sds-QS</td> <td>Observer</td> <td>N/A</td> <td>Observer</td> <td>rlghnc-sds-NO-a rlghnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Query Server</td> </tr> </tbody> </table> <p>A red circle highlights the first four rows of the table, and a blue '2' is placed below the 'Observer' row.</p>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	rlghnc-sds-NO-a	Standby	N/A	Active	rlghnc-sds-NO-b	NO_RLGHNC	Network OAM&P	rlghnc-sds-NO-b	Active	N/A	Active	rlghnc-sds-NO-a	NO_RLGHNC	Network OAM&P	mrsvnc-sds-NO-a	Standby	N/A	Active	mrsvnc-sds-NO-b	NO_MRSVNC	Network OAM&P	mrsvnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	NO_MRSVNC	Network OAM&P	rlghnc-sds-QS	Observer	N/A	Observer	rlghnc-sds-NO-a rlghnc-sds-NO-b	NO_RLGHNC	Query Server
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																																						
rlghnc-sds-NO-a	Standby	N/A	Active	rlghnc-sds-NO-b	NO_RLGHNC	Network OAM&P																																						
rlghnc-sds-NO-b	Active	N/A	Active	rlghnc-sds-NO-a	NO_RLGHNC	Network OAM&P																																						
mrsvnc-sds-NO-a	Standby	N/A	Active	mrsvnc-sds-NO-b	NO_MRSVNC	Network OAM&P																																						
mrsvnc-sds-NO-b	Active	N/A	Active	mrsvnc-sds-NO-a	NO_MRSVNC	Network OAM&P																																						
rlghnc-sds-QS	Observer	N/A	Observer	rlghnc-sds-NO-a rlghnc-sds-NO-b	NO_RLGHNC	Query Server																																						




**!!! WARNING!!! DO NOT SKIP THE FOLLOWING STEP!**

**“Active/Standby”** states for each NOAM server must be recorded as it is Critical that the SW on each server be restarted in the exact order specified in Steps 12 - 16 of this procedure.

10. <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Based on the information identified in the previous step, record the hostnames of the Primary Active, Primary Standby, Secondary Active (DR) and Secondary Standby NOAM Servers.</p>	<p>Site_1 = Primary_NOAM (Active) = _____</p> <p>Site_1 = Primary_NOAM (Standby) = _____</p> <p>Site_2 = DR_NOAM (Active) = _____</p> <p>Site_2 = DR_NOAM (Standby) = _____</p>
---------------------------------	---	---

11. <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p>	 <p>Main Menu: Status &amp; Manage -&gt; Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>freeport-dp-1</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-dp-2</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-a</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-b</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	freeport-dp-1	SDS_SO_Freeport	Enabled	freeport-dp-2	SDS_SO_Freeport	Enabled	freeport-sds-so-a	SDS_SO_Freeport	Enabled	freeport-sds-so-b	SDS_SO_Freeport	Enabled
Server Hostname	Network Element	Appl State															
freeport-dp-1	SDS_SO_Freeport	Enabled															
freeport-dp-2	SDS_SO_Freeport	Enabled															
freeport-sds-so-a	SDS_SO_Freeport	Enabled															
freeport-sds-so-b	SDS_SO_Freeport	Enabled															

Step #	Procedure	Description																																																	
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Based on the information recorded in <b>Step 10</b> of this procedure...</p> <p>Perform the below sub-steps on the newly promoted <b>Primary NOAM "Active"</b> Server (Site_2).</p> <p>1) Select the Server in the right panel (<i>highlight will occur</i>).</p> <p>2) Click the <b>"Restart"</b> dialogue button in the bottom of the right panel.</p> <p>3) Click <b>"OK"</b> in the pop-up confirmation dialogue box.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b> <span style="float: right;">Fri Mar 03 03:40:11 2017 UTC</span></p> <p>Filter* <input type="text"/> Info* <input type="text"/></p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>freeport-sds-so-b</td> <td>SDS_SO_Freepport</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="border: 2px dashed blue;"> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Disabled</td> <td>Err</td> <td>Warn</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>righnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>righnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>righnc-sds-QS</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Stop Restart Reboot NTP Sync Report</p> <p>Restart selected server(s).</p> <p>Copyright © 2010, 2017, Oracle and/or its affiliates. All rights reserved.</p> <p>Message from webpage</p> <p>Are you sure you wish to restart application software on the following server(s)? mrsvnc-sds-NO-b</p> <p>OK Cancel</p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	freeport-sds-so-b	SDS_SO_Freepport	Enabled	Norm	Norm	Norm	Norm	mrsvnc-sds-NO-a	NO_MRSVNC	Disabled	Warn	Norm	Norm	Man	mrsvnc-sds-NO-b	NO_MRSVNC	Disabled	Err	Warn	Norm	Man	righnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man	righnc-sds-NO-b	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man	righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																													
freeport-sds-so-b	SDS_SO_Freepport	Enabled	Norm	Norm	Norm	Norm																																													
mrsvnc-sds-NO-a	NO_MRSVNC	Disabled	Warn	Norm	Norm	Man																																													
mrsvnc-sds-NO-b	NO_MRSVNC	Disabled	Err	Warn	Norm	Man																																													
righnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man																																													
righnc-sds-NO-b	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man																																													
righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																													
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>After the screen refresh, verify that the server now shows an <b>Appl State</b> value of <b>"Enabled"</b> and a <b>Proc</b> value of <b>"Norm"</b>.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Filter* <input type="text"/> Info* <input type="text"/></p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr style="border: 2px dashed blue;"> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Enabled</td> <td>Warn</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>righnc-sds-NO-a</td> <td>NO_RLGHNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>righnc-sds-NO-b</td> <td>NO_RLGHNC</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>righnc-sds-QS</td> <td>NO_RLGHNC</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	mrsvnc-sds-NO-a	NO_MRSVNC	Disabled	Warn	Norm	Norm	Man	mrsvnc-sds-NO-b	NO_MRSVNC	Enabled	Warn	Warn	Norm	Norm	righnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man	righnc-sds-NO-b	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man	righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm							
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																													
mrsvnc-sds-NO-a	NO_MRSVNC	Disabled	Warn	Norm	Norm	Man																																													
mrsvnc-sds-NO-b	NO_MRSVNC	Enabled	Warn	Warn	Norm	Norm																																													
righnc-sds-NO-a	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man																																													
righnc-sds-NO-b	NO_RLGHNC	Disabled	Warn	Norm	Norm	Man																																													
righnc-sds-QS	NO_RLGHNC	Enabled	Norm	Norm	Norm	Norm																																													
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p><b>"Restart"</b> the SW on the <b>Primary NOAM "Standby"</b> Server.</p>	<p>Repeat <b>Steps 12 - 13</b> of this Procedure for the <b>Primary NOAM "Standby"</b> Server.</p>																																																	
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p><b>"Restart"</b> the SW on the <b>DR NOAM "Standby"</b> Server.</p>	<p>Repeat <b>Steps 12 - 13</b> of this Procedure for the <b>DR NOAM "Standby"</b> Server.</p>																																																	

Step #	Procedure	Description
16. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> “Restart” the SW on the DR NOAM “Active” Server.	Repeat <b>Steps 12 - 13</b> of this Procedure for the DR NOAM “Active” Server.
	<ul style="list-style-type: none"> <li>FOR <b>SDS</b> SYSTEMS, THIS PROCEDURE HAS BEEN COMPLETED. <b>RETURN TO FIGURE 1</b> FOR NEXT STEPS.</li> <li>FOR <b>DSR</b> SYSTEMS ONLY, CONTINUE WITH <b>STEP 17</b> OF THIS PROCEDURE.</li> </ul>	
17. <input type="checkbox"/>	<b>DSR Systems Only (Steps 17 - 22):</b> <b>New Primary NOAM VIP (former DR):</b> Identify the <code>clusterId</code> values for the <code>myRecognizedPrimary</code> and the <code>myRecognizedSecondary</code> (e.g. Axxxx).	<pre>[admusr@dominica-dr-noam-b ~]\$ top.myrole myNodeId=A0568.058 myParentClusters=( ) myClusterRole=Primary <b>myRecognizedPrimary=A0568</b> <b>myRecognizedSecondary=A1667</b> [admusr@dominica-dr-noam-b ~]\$</pre>
18. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> Record the <code>clusterId</code> values for the <code>myRecognizedPrimary</code> and the <code>myRecognizedSecondary</code> in the space provided.	<pre>myRecognizedPrimary (clusterId)    = _____  myRecognizedSecondary (clusterId) = _____</pre>
19. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> Identify which A-Level <code>clusterId</code> (e.g. Axxxx) is located in the “HaClusterResourceCfg” table.	<pre>[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional <b>A0568</b> DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$</pre>
20. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> If the A-Level <code>clusterId</code> located in the “HaClusterResourceCfg” table is the <code>myRecognizedPrimary</code> value recorded in <b>Step 18</b> of this procedure, <b>delete the entry</b> as shown to the right.  Otherwise, continue to the next step.	<p><b>Syntax Example:</b></p> <pre>\$ irem HaClusterResourceCfg where "cluster='&lt;myRecognizedPrimary_clusterId&gt;'"  [admusr@dominica-dr-noam-b ~]\$ irem HaClusterResourceCfg where "cluster='A0568'" === deleted 1 records === [admusr@dominica-dr-noam-b ~]\$</pre>

Step #	Procedure	Description
21. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> Add an entry to the "HaClusterResourceCfg" table for the <i>myRecognizedSecondary</i> value recorded in <b>Step 18</b> of this procedure.	<b>Syntax Example:</b> \$ echo "<myRecognizedSecondary_clusterId> DSROAM_Proc Yes"   iload -ha -xun -fcluster -fresource -foptional HaClusterResourceCfg  [admusr@dominica-dr-noam-b ~]\$ <b>echo "A1667 DSROAM_Proc Yes"   iload -ha -xun -fcluster -fresource -foptional HaClusterResourceCfg</b> [admusr@dominica-dr-noam-b ~]\$
22. <input type="checkbox"/>	<b>New Primary NOAM VIP (former DR):</b> Verify that the "HaClusterResourceCfg" table now displays an entry for the <i>myRecognizedSecondary</i> value recorded in <b>Step 18</b> of this procedure.	[admusr@dominica-dr-noam-b ~]\$ <b>iqz -p HaClusterResourceCfg</b> cluster resource optional <b>A1667</b> DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$
<b>This Procedure has been completed. Return to <a href="#">Figure 1</a>.</b>		

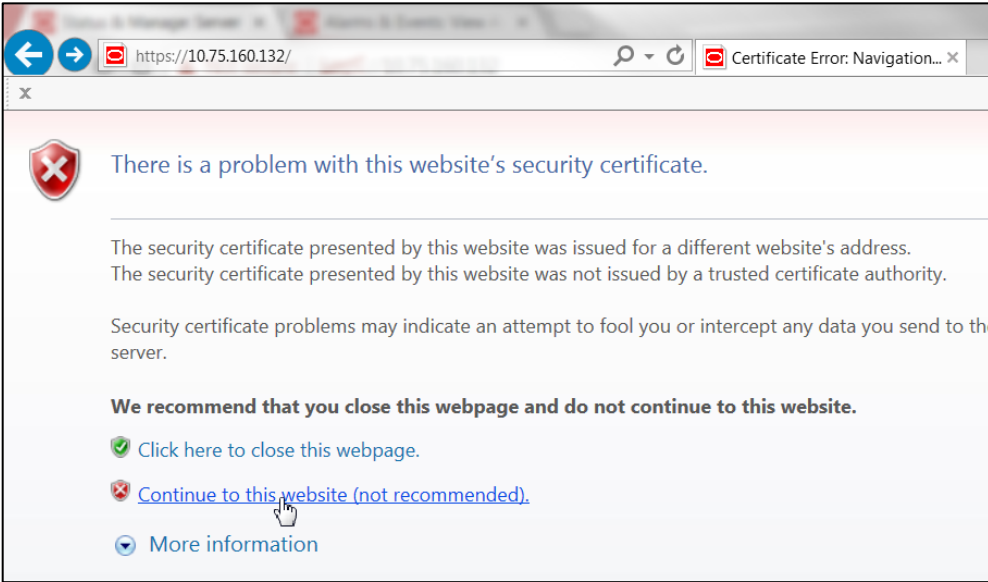

5.2.2 Promoting the DR NOAM from Secondary to Primary (Outage)

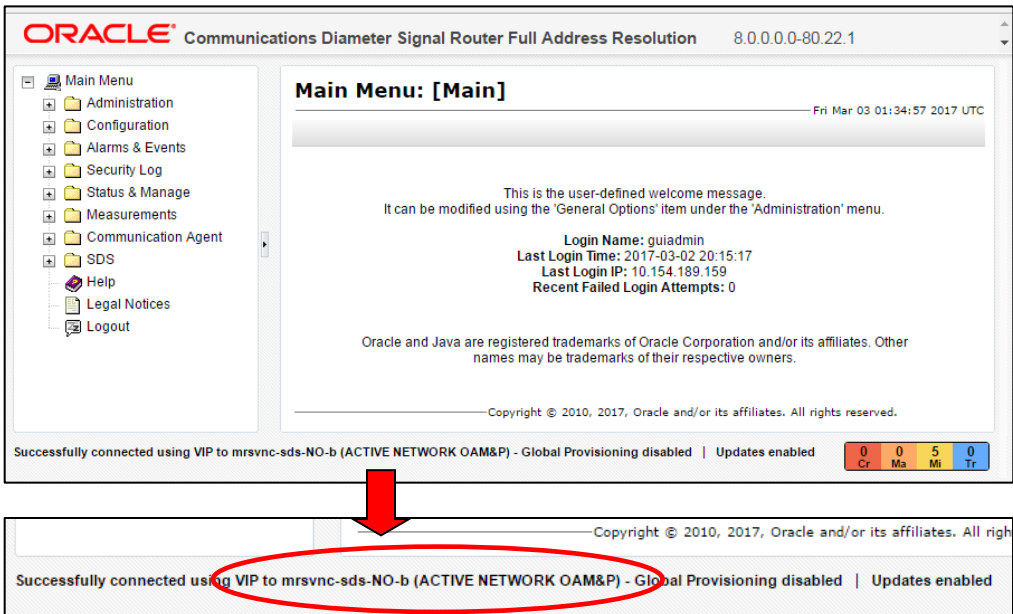
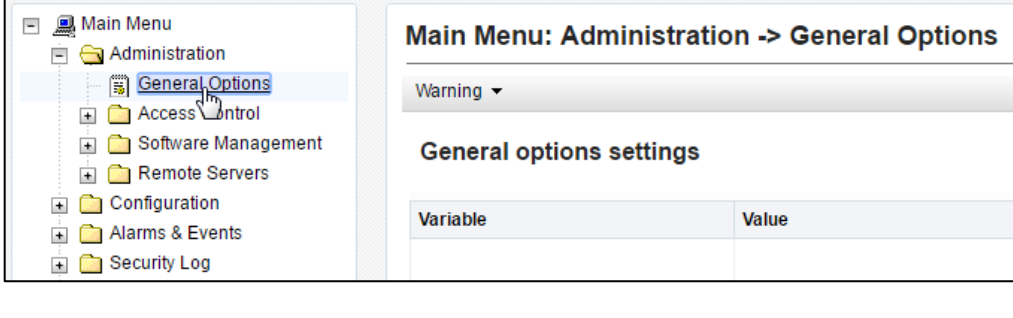
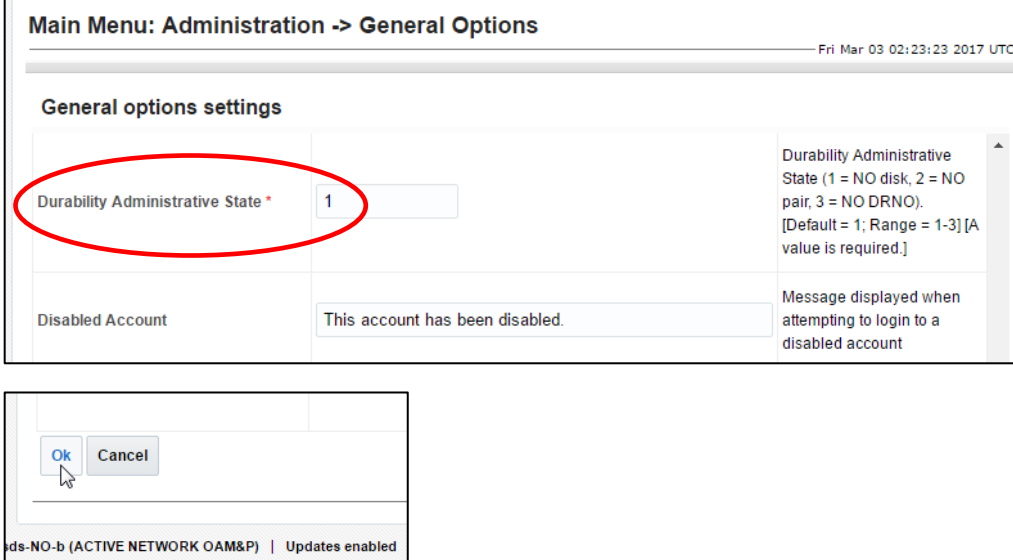
**Procedure 6: Promoting the DR NOAM from Secondary to Primary (Outage) [Site\_2]**

Step#	Procedure	Description																																																																		
<p>This procedure provides instructions on promoting the DR NOAM from Secondary to Primary.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>																																																																				
1. <input type="checkbox"/>	<b>DR NOAM:</b> 1) Access the command prompt (CLI).  2) Log into the server as the "admusr" user.	Establish an SSH session to the SDS/DSR DR NOAM XMI IP address and login as admusr. msvnc-sds-NO-b login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>																																																																		
2. <input type="checkbox"/>	<b>DR NOAM:</b> Check NOAM Status	Execute this command to find the state of the server: \$ ha.mystate [admusr@msvnc-sds-NO-b ~]\$ ha.mystate  <table border="1" style="background-color: #f0f0f0; border-collapse: collapse; width: 100%;"> <thead> <tr> <th>resourceId</th> <th>role</th> <th>node</th> <th>DC</th> <th>subResources</th> <th>lastUpdate</th> </tr> </thead> <tbody> <tr> <td>DbReplication</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.775</td> </tr> <tr> <td>VIP</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.875</td> </tr> <tr> <td>CacdProcessRes</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.873</td> </tr> <tr> <td>PDBA_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>PDBAUDIT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.875</td> </tr> <tr> <td>PDBRELAY_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>XDS_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.878</td> </tr> <tr> <td>IMPORT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.876</td> </tr> <tr> <td>EXPORT_Process</td> <td>Act/Act</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180712:064445.877</td> </tr> <tr> <td>DPSERVER_Process</td> <td>Act/OOS</td> <td>A3374.144</td> <td>*</td> <td>0</td> <td>180711:062936.051</td> </tr> </tbody> </table> <p>Execute the following commands on the Active NOAM.</p>	resourceId	role	node	DC	subResources	lastUpdate	DbReplication	Act/Act	A3374.144	*	0	180712:064445.775	VIP	Act/Act	A3374.144	*	0	180712:064445.875	CacdProcessRes	Act/Act	A3374.144	*	0	180712:064445.873	PDBA_Process	Act/Act	A3374.144	*	0	180712:064445.876	PDBAUDIT_Process	Act/Act	A3374.144	*	0	180712:064445.875	PDBRELAY_Process	Act/Act	A3374.144	*	0	180712:064445.876	XDS_Process	Act/Act	A3374.144	*	0	180712:064445.878	IMPORT_Process	Act/Act	A3374.144	*	0	180712:064445.876	EXPORT_Process	Act/Act	A3374.144	*	0	180712:064445.877	DPSERVER_Process	Act/OOS	A3374.144	*	0	180711:062936.051
resourceId	role	node	DC	subResources	lastUpdate																																																															
DbReplication	Act/Act	A3374.144	*	0	180712:064445.775																																																															
VIP	Act/Act	A3374.144	*	0	180712:064445.875																																																															
CacdProcessRes	Act/Act	A3374.144	*	0	180712:064445.873																																																															
PDBA_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
PDBAUDIT_Process	Act/Act	A3374.144	*	0	180712:064445.875																																																															
PDBRELAY_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
XDS_Process	Act/Act	A3374.144	*	0	180712:064445.878																																																															
IMPORT_Process	Act/Act	A3374.144	*	0	180712:064445.876																																																															
EXPORT_Process	Act/Act	A3374.144	*	0	180712:064445.877																																																															
DPSERVER_Process	Act/OOS	A3374.144	*	0	180711:062936.051																																																															

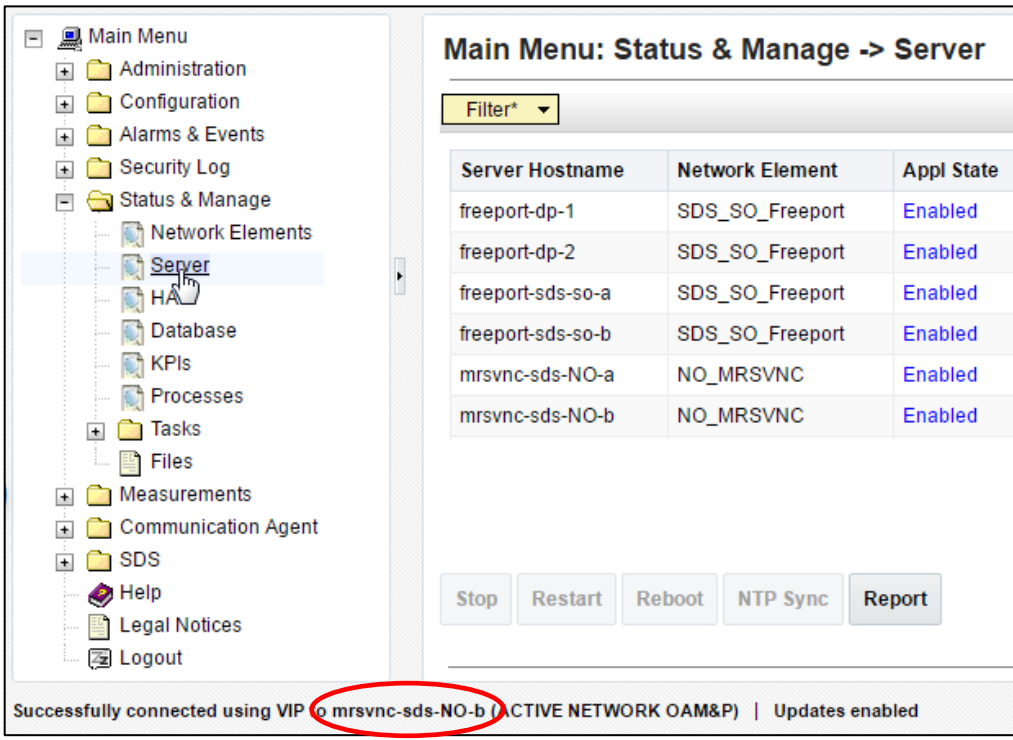
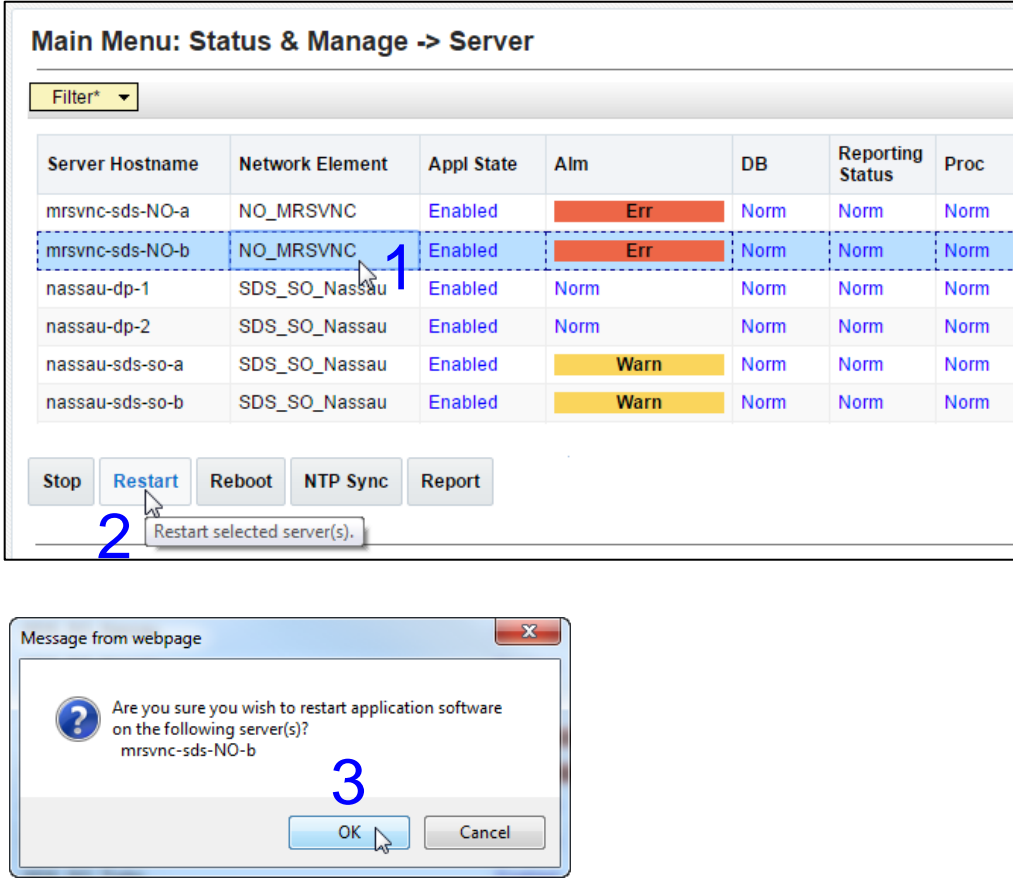
Step#	Procedure	Description
<p>3.</p> <input type="checkbox"/>	<p><b>DR NOAM:</b> Verify that the current value for “<b>myClusterRole</b>” is “<b>Secondary</b>”.</p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeId=A1103.165 myParentClusters=( A0907 ) myClusterRole=<b>Secondary</b> <b>myRecognizedPrimary=A0907</b> myRecognizedSecondary=A1103 [admusr@mrsvnc-sds-NO-b ~]\$</pre>
<p>4.</p> <input type="checkbox"/>	<p><b>DR NOAM:</b> Using the <b>clusterId</b> of the <b>myRecognizedPrimary</b> from the previous step, set the <b>clusterId</b> to <b>Secondary</b>.</p> <p><b>NOTE: The connection timeouts to the Primary NOAM NE (shown in the output to the right) are expected when that NE is network isolated.</b></p> <p><b>Under these circumstances, the user should allow several minutes (≈ 7) for this command to complete.</b></p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.setSecondary A0907 - New Secondary Timestamp: 03/03/17 18:28:48.318 - Updating To A0907.060: rlgnc-sds-NO-a setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A0907.113: rlgnc-sds-QS setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A0907.121: rlgnc-sds-NO-b setSecondaryTo(A0907) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$</pre>
<p>5.</p> <input type="checkbox"/>	<p><b>DR NOAM:</b> Set the value for “<b>myClusterRole</b>” to “<b>Primary</b>”.</p> <p><b>NOTE: The connection timeouts to the Primary NOAM NE (shown in the output to the right) are expected when that NE is network isolated.</b></p> <p><b>Under these circumstances, the user should allow several minutes (≈ 7) for this command to complete.</b></p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.setPrimary - Using my cluster: A1103 - New Primary Timestamp: 03/03/17 18:35:26.279 - Updating To A0907.060: rlgnc-sds-NO-a setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A0907.113: rlgnc-sds-QS setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A0907.121: rlgnc-sds-NO-b setPrimaryTo(A1103) returned proxy error=28 SOAP 1.2 fault SOAP-ENV:Receiver [no subcode] "Connection timed out" Detail: connect failed in tcp_connect()  - Updating To A1103.165: mrsvnc-sds-NO-b - Updating To A1103.223: mrsvnc-sds-NO-a [admusr@mrsvnc-sds-NO-b ~]\$</pre>




Step#	Procedure	Description
<p>6.</p> <input type="checkbox"/>	<p><b>DR NOAM:</b> Verify that the value for <b>“myClusterRole”</b> is now set to <b>“Primary”</b>.</p>	<pre>[admusr@mrsvnc-sds-NO-b ~]\$ top.myrole myNodeId=A1103.165 myParentClusters=( ) myClusterRole=Primary myRecognizedPrimary=A1103 myRecognizedSecondary=A0907 [admusr@mrsvnc-sds-NO-b ~]\$</pre>
<p>7.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XMI Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>	
<p>8.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	

Step#	Procedure	Description
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Administration  → General Options</p> <p>...as shown on the right.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Verify the value for “Durability Administrative State”.</p> <p>2) If executing this procedure in response to a network isolated Primary NOAM (outage), modify the “Durability Administrative State” value to 1 (if necessary) and click the “OK” dialogue button.</p>	



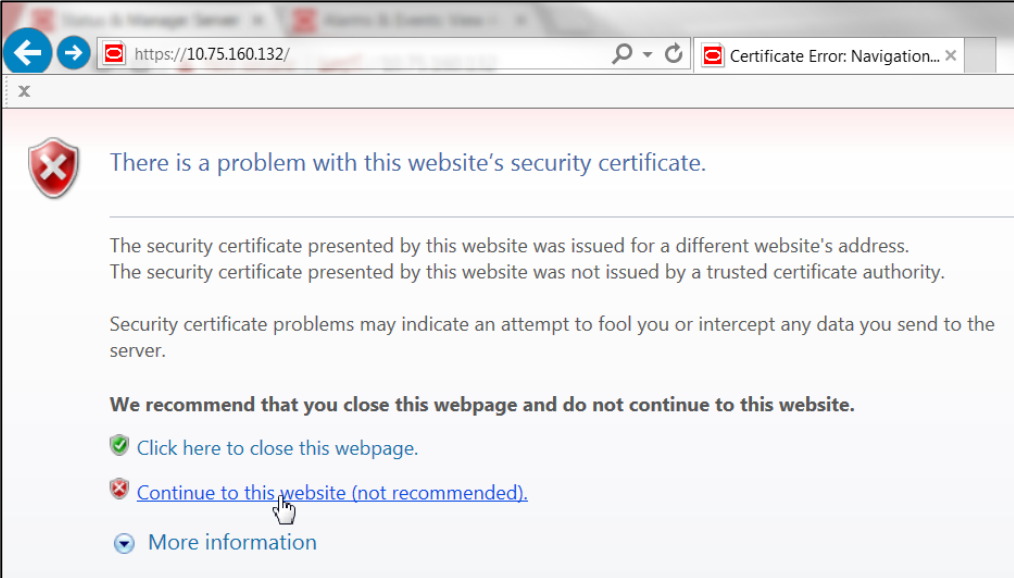

Step#	Procedure	Description																																																	
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p> <p>2) Identify the hostname of the <b>Primary Active NOAM</b> server from the banner message across the bottom of the browser window.</p>	 <p>Main Menu: Status &amp; Manage -&gt; Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>freeport-dp-1</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-dp-2</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-a</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>freeport-sds-so-b</td> <td>SDS_SO_Freeport</td> <td>Enabled</td> </tr> <tr> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Enabled</td> </tr> <tr> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Enabled</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot, NTP Sync, Report</p> <p>Successfully connected using VIP to <b>mrsvnc-sds-NO-b</b> (ACTIVE NETWORK OAM&amp;P)   Updates enabled</p>	Server Hostname	Network Element	Appl State	freeport-dp-1	SDS_SO_Freeport	Enabled	freeport-dp-2	SDS_SO_Freeport	Enabled	freeport-sds-so-a	SDS_SO_Freeport	Enabled	freeport-sds-so-b	SDS_SO_Freeport	Enabled	mrsvnc-sds-NO-a	NO_MRSVNC	Enabled	mrsvnc-sds-NO-b	NO_MRSVNC	Enabled																												
Server Hostname	Network Element	Appl State																																																	
freeport-dp-1	SDS_SO_Freeport	Enabled																																																	
freeport-dp-2	SDS_SO_Freeport	Enabled																																																	
freeport-sds-so-a	SDS_SO_Freeport	Enabled																																																	
freeport-sds-so-b	SDS_SO_Freeport	Enabled																																																	
mrsvnc-sds-NO-a	NO_MRSVNC	Enabled																																																	
mrsvnc-sds-NO-b	NO_MRSVNC	Enabled																																																	
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Based on the information recorded in <b>Step 12</b> of this procedure...</p> <p>Perform the below sub-steps on the newly promoted <b>Primary NOAM "Active" Server</b> (Site_2).</p> <p>1) Select the Server in the right panel (<i>highlight will occur</i>).</p> <p>2) Click the <b>"Restart"</b> dialogue button in the bottom of the right panel.</p> <p>3) Click <b>"OK"</b> in the pop-up confirmation dialogue box.</p> <p><b>New capture for top graphic.</b></p>	 <p>Main Menu: Status &amp; Manage -&gt; Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>mrsvnc-sds-NO-a</td> <td>NO_MRSVNC</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="background-color: #e6f2ff;"> <td>mrsvnc-sds-NO-b</td> <td>NO_MRSVNC</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>nassau-dp-1</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>nassau-dp-2</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>nassau-sds-so-a</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>nassau-sds-so-b</td> <td>SDS_SO_Nassau</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot, NTP Sync, Report</p> <p>Restart selected server(s).</p> <p>Message from webpage</p> <p>Are you sure you wish to restart application software on the following server(s)? mrsvnc-sds-NO-b</p> <p>Buttons: OK, Cancel</p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	mrsvnc-sds-NO-a	NO_MRSVNC	Enabled	Err	Norm	Norm	Norm	mrsvnc-sds-NO-b	NO_MRSVNC	Enabled	Err	Norm	Norm	Norm	nassau-dp-1	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm	nassau-dp-2	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm	nassau-sds-so-a	SDS_SO_Nassau	Enabled	Warn	Norm	Norm	Norm	nassau-sds-so-b	SDS_SO_Nassau	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																													
mrsvnc-sds-NO-a	NO_MRSVNC	Enabled	Err	Norm	Norm	Norm																																													
mrsvnc-sds-NO-b	NO_MRSVNC	Enabled	Err	Norm	Norm	Norm																																													
nassau-dp-1	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm																																													
nassau-dp-2	SDS_SO_Nassau	Enabled	Norm	Norm	Norm	Norm																																													
nassau-sds-so-a	SDS_SO_Nassau	Enabled	Warn	Norm	Norm	Norm																																													
nassau-sds-so-b	SDS_SO_Nassau	Enabled	Warn	Norm	Norm	Norm																																													

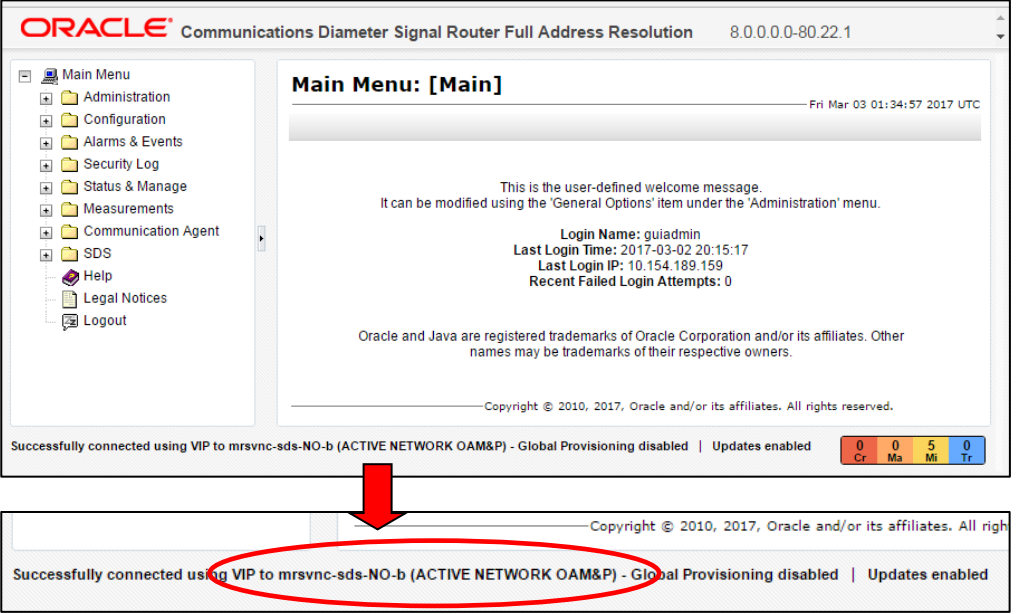
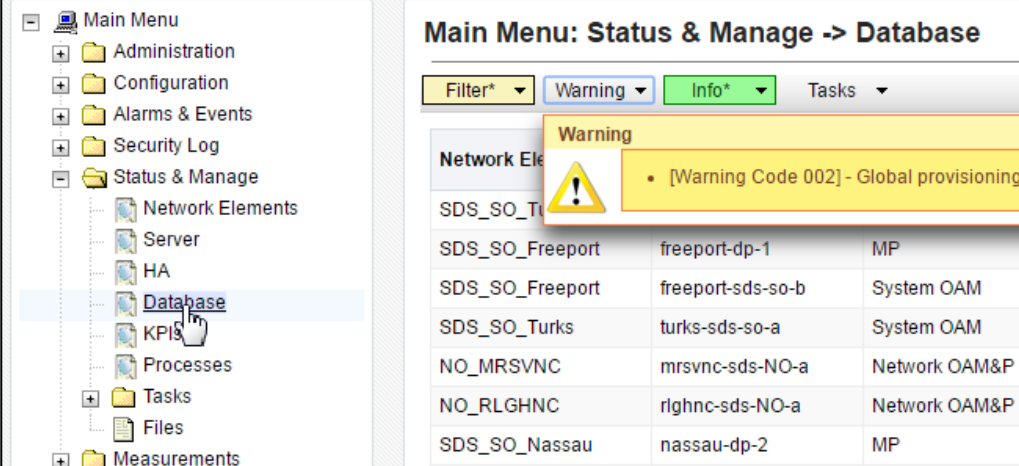
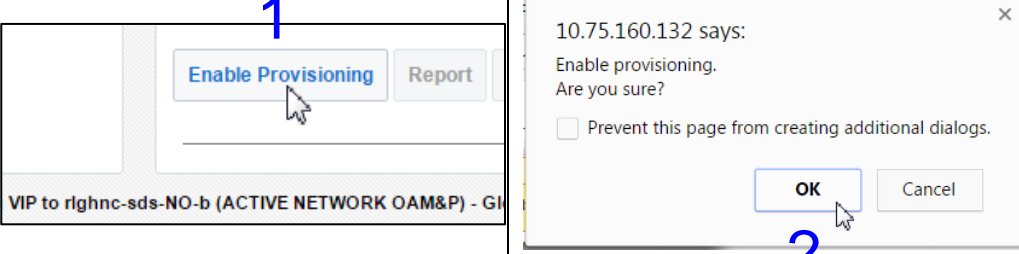
Step#	Procedure	Description
	<ul style="list-style-type: none"> <li>FOR <b>SDS</b> SYSTEMS, THIS PROCEDURE HAS BEEN COMPLETED. <b>RETURN TO FIGURE 1</b> FOR NEXT STEPS.</li> <li>FOR <b>DSR</b> SYSTEMS ONLY, CONTINUE WITH <b>STEP 14</b> OF THIS PROCEDURE.</li> </ul>	
<p>14.</p> <input type="checkbox"/>	<p><b>DSR Systems Only (Steps 14 - 19):</b></p> <p><b>New Primary NOAM VIP (former DR):</b></p> <p>Identify the <b>clusterId</b> values for the <i>myRecognizedPrimary</i> and the <i>myRecognizedSecondary</i> (e.g. Axxxx).</p>	<pre>[admusr@dominica-dr-noam-b ~]\$ top.myrole myNodeld=A0568.058 myParentClusters=( ) myClusterRole=Primary <b>myRecognizedPrimary=A0568</b> <b>myRecognizedSecondary=A1667</b> [admusr@dominica-dr-noam-b ~]\$</pre>
<p>15.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Record the <b>clusterId</b> values for the <i>myRecognizedPrimary</i> and the <i>myRecognizedSecondary</i> in the space provided.</p>	<pre>myRecognizedPrimary (clusterId) = _____ myRecognizedSecondary (clusterId) = _____</pre>
<p>16.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Identify which A-Level <b>clusterId</b> (e.g. Axxxx) is located in the "HaClusterResource Cfg" table.</p>	<pre>[admusr@dominica-dr-noam-b ~]\$ iqt -p HaClusterResourceCfg cluster resource optional <b>A0568</b> DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$</pre>
<p>17.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>If the A-Level <b>clusterId</b> located in the "HaClusterResource Cfg" table is the <i>myRecognizedPrimary</i> value recorded in <b>Step 18</b> of this procedure, <b>delete the entry</b> as shown to the right.</p> <p>Otherwise, continue to the next step.</p>	<p><b>Syntax Example:</b></p> <pre>\$ irem HaClusterResourceCfg where "cluster='&lt;myRecognizedPrimary_clusterId&gt;"</pre> <pre>[admusr@dominica-dr-noam-b ~]\$ irem HaClusterResourceCfg where "cluster='A0568'" === deleted 1 records === [admusr@dominica-dr-noam-b ~]\$</pre>
<p>18.</p> <input type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Add an entry to the "HaClusterResource Cfg" table for the <i>myRecognizedSecondary</i> value recorded in <b>Step 18</b> of this procedure.</p>	<p><b>Syntax Example:</b></p> <pre>\$ echo "&lt;myRecognizedSecondary_clusterId&gt; DSROAM_Proc Yes"   iload -ha -xun -fcluster -fresource -foptional HaClusterResourceCfg</pre> <pre>[admusr@dominica-dr-noam-b ~]\$ echo "A1667 DSROAM_Proc Yes"   iload -ha -xun -fcluster -fresource -foptional HaClusterResourceCfg [admusr@dominica-dr-noam-b ~]\$</pre>

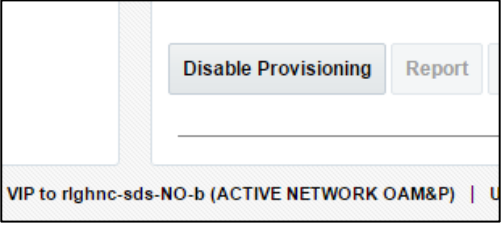
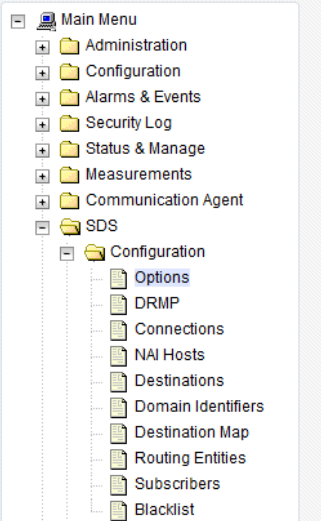
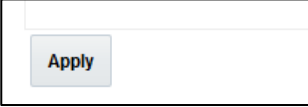
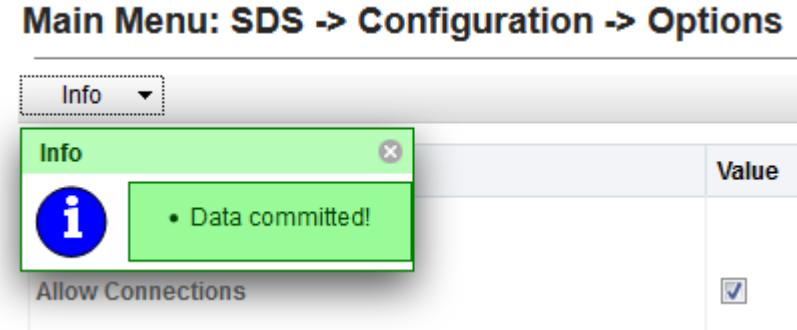
Step#	Procedure	Description
<p>19.</p> <input data-bbox="159 262 203 310" type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>Verify that the “HaClusterResource Cfg” table now displays an entry for the <i>myRecognizedSecondary</i> value recorded in <b>Step 18</b> of this procedure.</p>	<pre>[admusr@dominica-dr-noam-b ~]\$ <b>iqd -p HaClusterResourceCfg</b> cluster resource optional <b>A1667</b> DSROAM_Proc Yes C0804 DSROAM_Proc Yes C1223 DSROAM_Proc Yes C2346 DSROAM_Proc Yes C3147 DSROAM_Proc Yes C3316 DSROAM_Proc Yes [admusr@dominica-dr-noam-b ~]\$</pre>
<p><b>This Procedure has been completed. Return to <a href="#">Figure 1</a>.</b></p>		

### 5.3 Enable Global Provisioning

#### Procedure 7: Enable Global Provisioning [Site\_2]

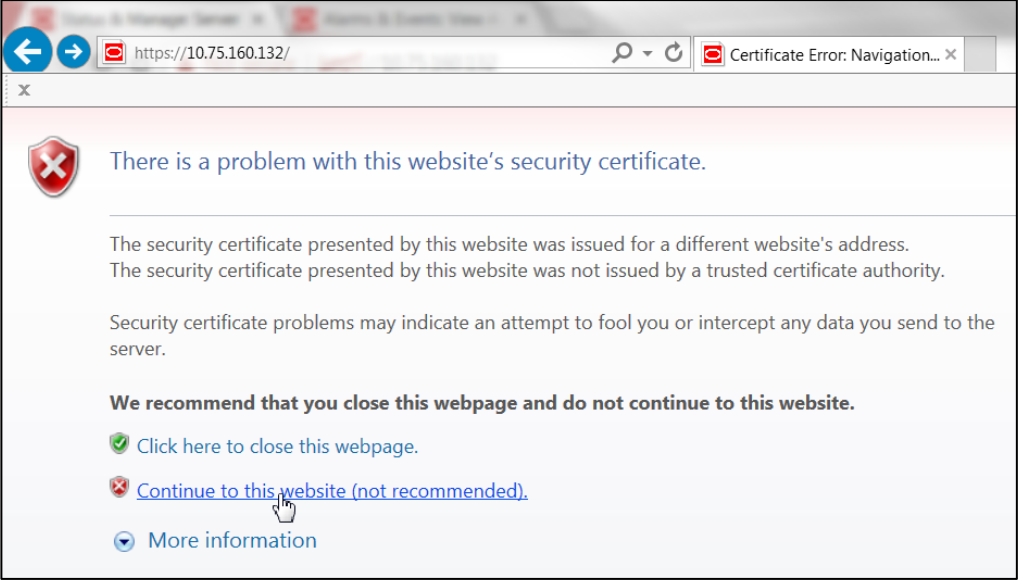

Step#	Procedure	Description
<p>This procedure provides instructions on “Enable Global Provisioning” at the “newly promoted” Primary NOAM GUI.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 531 203 573" type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XMI Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p>“Continue to this website (not recommended).”</p>	
<p>2.</p> <input data-bbox="159 1167 203 1209" type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	

Step#	Procedure	Description
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>	
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Database</b></p> <p>...as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>1) Select the “Enable Provisioning” dialogue button located at the bottom of the right panel.</p> <p>2) Click “OK” on the pop-up confirmation dialogue box.</p>	

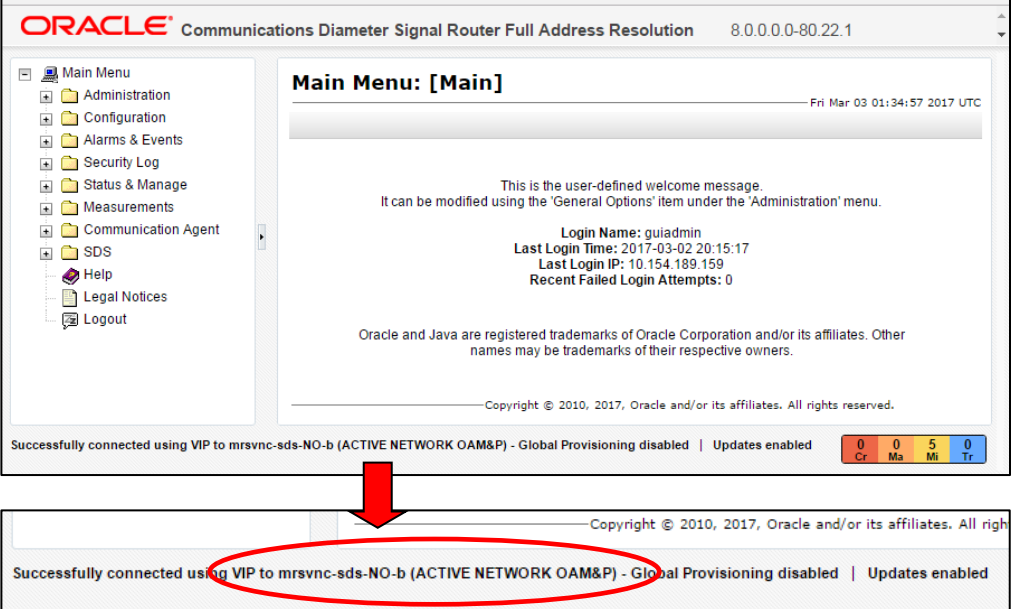
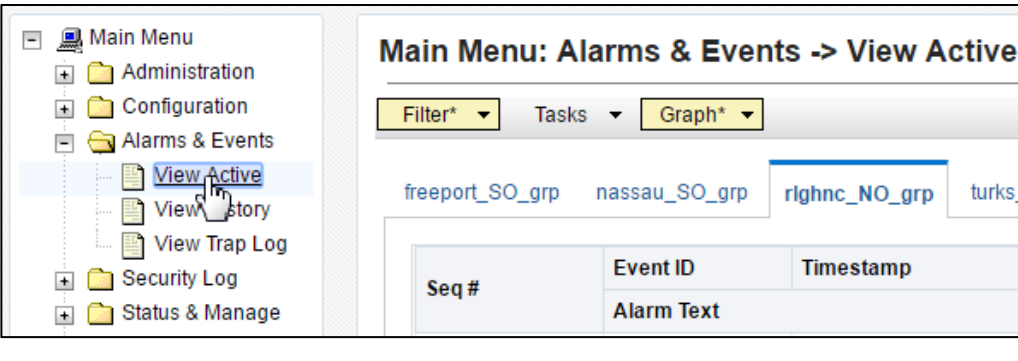
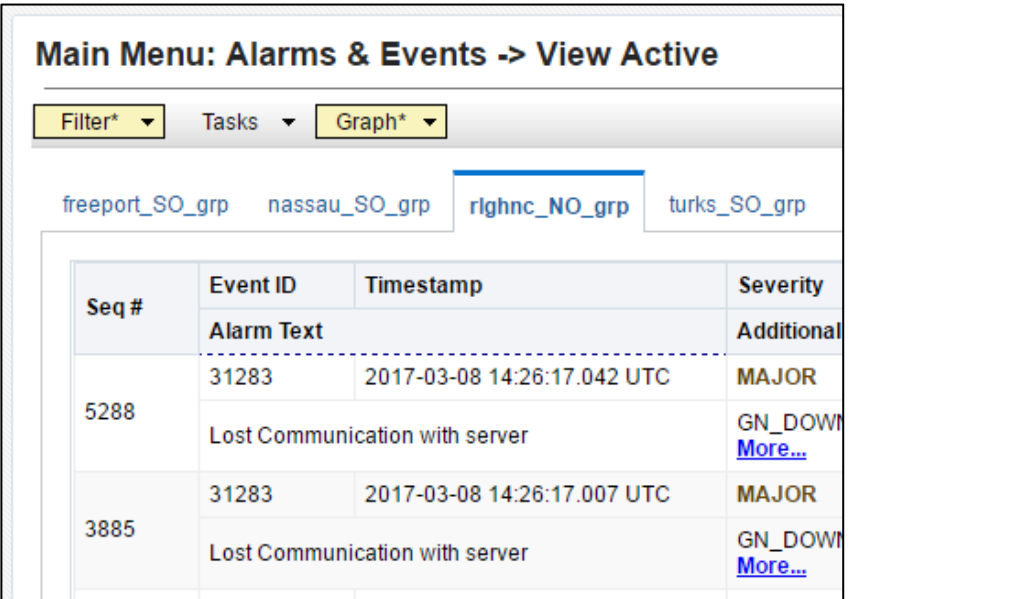
Step#	Procedure	Description
<p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>Primary NOAM VIP:</b></p> <p>Verify that the dialogue button located at the bottom of the right panel changes text to <b>“Disable Provisioning”</b>.</p>	
<p>7.</p>	<p><b>Primary NOAM VIP:</b> Enable PDB Relay.</p> <p><b>Main Menu</b>  → <b>Configurations</b>  → <b>Options</b></p> <p>...as shown on the right.</p>	<p>Go to <b>Configurations -&gt; Options</b></p> <p>Check the <b>PDB Relay Enabled</b> option box.</p>  <p>Click <b>Apply</b>.</p>  <p>The following confirmation message is received:</p> <p><b>Main Menu: SDS -&gt; Configuration -&gt; Options</b></p> 
<p><b>This Procedure has been completed. Return to <span style="background-color: yellow;">Figure 1</span>.</b></p>		

## 6. Verifying Alarm Status (after failover)

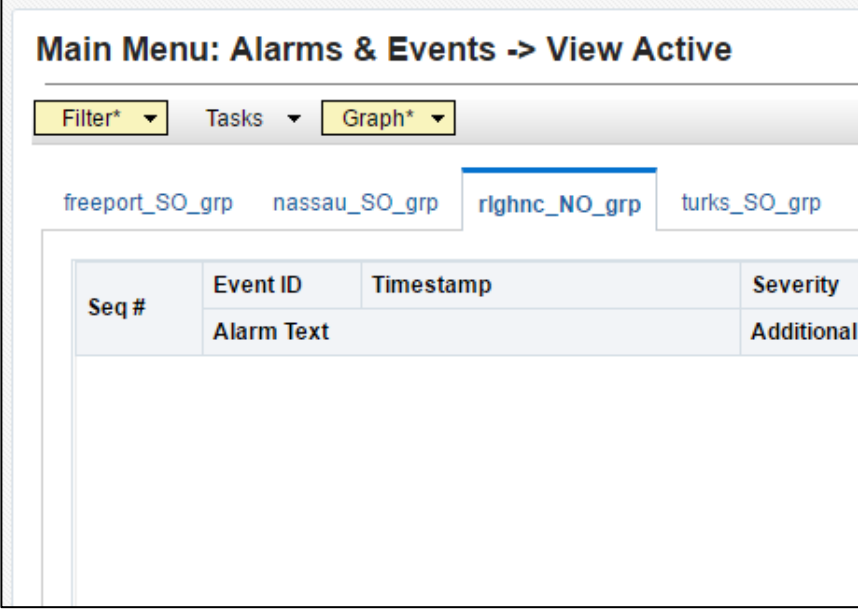
### Procedure 8: Verify Alarm Status (system wide) at the Active Primary NOAM

Step#	Procedure	Description
<p>This procedure provides instructions on verifying alarms at the Primary Active NOAM.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 499 203 541" type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>1) Launch an <b>HTML5</b> compliant browser and connect to the XMI Virtual IP address (VIP) assigned to <b>Primary Active NOAM site</b>.</p> <p>2) If a Certificate Error is received, click on the link which states...</p> <p><b>“Continue to this website (not recommended).”</b></p>	
<p>2.</p> <input data-bbox="159 1123 203 1165" type="checkbox"/>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using a User account with Administrator privileges.</p>	



Step#	Procedure	Description															
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>New Primary NOAM VIP (former DR):</b></p> <p>The user should be presented the Product Main Menu as shown on the right.</p> <p>Verify that the message shown across the bottom of the panel indicates that the browser is using the “VIP” to connect to the “ACTIVE NETWORK OAM&amp;P”.</p>																
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Alarm &amp; Events  → View Active</p> <p>...as shown on the right.</p>																
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary NOAM VIP:</b></p> <p>The User is presented with the current list of Active Alarms.</p> <p><b>NOTE:</b> Alarms visible at this time may include but are not limited to <b>Event ID(s): 31106, 31107, 31114, 31233 &amp; 31283.</b></p>	 <table border="1" data-bbox="581 1514 1349 1843"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Alarm Text</th> </tr> </thead> <tbody> <tr> <td>5288</td> <td>31283</td> <td>2017-03-08 14:26:17.042 UTC</td> <td>MAJOR</td> <td>Lost Communication with server</td> </tr> <tr> <td>3885</td> <td>31283</td> <td>2017-03-08 14:26:17.007 UTC</td> <td>MAJOR</td> <td>Lost Communication with server</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Alarm Text	5288	31283	2017-03-08 14:26:17.042 UTC	MAJOR	Lost Communication with server	3885	31283	2017-03-08 14:26:17.007 UTC	MAJOR	Lost Communication with server
Seq #	Event ID	Timestamp	Severity	Alarm Text													
5288	31283	2017-03-08 14:26:17.042 UTC	MAJOR	Lost Communication with server													
3885	31283	2017-03-08 14:26:17.007 UTC	MAJOR	Lost Communication with server													



Step#	Procedure	Description
<p>6.</p> <input data-bbox="159 247 203 298" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Monitor the current list of “Active” alarms until all alarms associated with the Failover have cleared.</p> <p><b>NOTE:</b> <i>The User should allow at least <b>15 minutes</b> for resulting alarms to clear before attempting any troubleshooting activities.</i></p>	
<p>7.</p> <input data-bbox="159 892 203 942" type="checkbox"/>	<p><b>Primary NOAM VIP:</b></p> <p>Contact Oracle's Tekelec Customer Care Center if needed.</p>	<ul style="list-style-type: none"> <li>• Contact <b>My Oracle Support (MOS)</b> for assistance with any reoccurring alarms or alarms which fail to clear within a 15 minute timeframe.</li> <li>• Refer to <b>APPENDIX A: Accessing My Oracle Support (MOS)</b>, for more information on contacting Oracle Customer Service.</li> </ul> <p><b>NOTE:</b> <i>If alarms fail to clear that are related to features that use <b>SSH key exchange based file transfer</b> and the user wishes to re-enable them prior to performing a Failover back to the original Primary/Secondary states, then the feature may be reconfigured using the product feature's initial configuration procedures.</i></p> <p style="padding-left: 40px;"><i>Partial list of features that use SSH key exchange based file transfer:</i></p> <ul style="list-style-type: none"> <li>○ <b>SDS:</b> provimport, provexport, APDE</li> <li>○ <b>HLRR:</b> PDE, APDE</li> <li>○ <b>DSR:</b> APDE</li> </ul>
<p><b>This Procedure has been completed. Return to <a href="#">Figure 1</a>.</b></p>		

## 7. Backout Procedures

### Procedure 9: Reversing Primary/Secondary NOAM Failover (Backout)

Step#	Procedure	Description
<p>This procedure provides instructions on reversing Primary/DR NOAM Failover.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF ANY STEP IN THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.</p>		
<p>1.</p> <input data-bbox="159 499 203 541" type="checkbox"/>	<p>Repeat Procedures in Figure 1.</p>	<p><b>The User should recognize that the Primary/Secondary NOAM states are now reversed from what they were prior to the previous execution of this procedure!!!</b></p> <p>Insert the <b>Site_1</b> and <b>Site_2</b> names in the bottom of <b>Figure 1</b> according to the real-time state (<b>Primary/Secondary</b>) for each NOAM site and follow the Flowchart.</p>
<p><b>This Procedure has been completed.</b></p>		

## APPENDIX A: Accessing My Oracle Support (MOS)

### My Oracle Support

My Oracle Support (MOS) (<https://support.oracle.com>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at **1-800-223-1711** (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. When calling, there are multiple layers of menu selections. Make the selections in the sequence shown below on the Support telephone menu:

1. For the first set of menu options, select 2, "New Service Request". You will hear another set of menu options.
2. In this set of menu options, select 3, "Hardware, Networking and Solaris Operating System Support". A third set of menu options begins.
3. In the third set of options, select 2, "Non-technical issue". Then you will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer new to MOS.

MOS is available 24 hours a day, 7 days a week, and 365 days a year.

### Emergency Response

In the event of a critical service situation, emergency response is offered by the CAS main number at **1-800-223-1711** (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

### Locate Product Documentation on the Oracle Help Center Site

Oracle customer documentation is available on the web at the Oracle Help Center (OHC) site, <http://docs.oracle.com>. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at <http://www.adobe.com>.

1. Access the OHC site at <http://docs.oracle.com>.
2. Click **Industries**.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link. The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click the Product and then the Release Number. A list of the entire documentation set for the selected product and release appears.

To download a file to your location, right-click the PDF link, select **Save target as** (or similar command based on your browser), and save to a local folder.